# How to become a Backgammon Hog by Stefan Gueth: 

BEGINNER SECTION

What Is Backgammon? by Michael Crane, BiBa Great Britain

Backgammon is a combination of games; it is a race game as in ludo in that the first player to get all his men around the board and off is the winner; it is a strategy game as in chess because it isn't just a simple race around the board but an absorbing tactical manoeuvre around the board, during which you have to have alternative plans as present ones fall apart on the roll of a die; and it is a board game similar to draughts inasmuch as the checkers are the same shape and move in opposing directions.
Summed up, backgammon is an exciting game of tactics, probabilities and chance. A game where, despite the vagaries of the dice, the more experienced and knowledgeable player will prevail in the long run. However, due to the chance or luck element, absolute beginners can on occasions triumph over a champion - this is the appeal of backgammon.

## Where Do We Start? - At The End!

If I start at the beginning you won't have the faintest idea of what you're trying to achieve during a game of backgammon. It is much easier to explain how the game ends first - this way, when you start to play from the beginning you'll know exactly what is required to win and how easy it can be to lose!

The winner in backgammon, as in ludo, is the first person to get all their checkers (referred to as men) around the board and off; essentially a racing game. Look at the diagram below showing your men in your home board (sometimes called inner). For the moment ignore the rest of the board.

Diagram 1


In backgammon we use two dice and men are moved according to the individual dice around the board from the 24 -point in the direction towards the 1-point (each triangular segment is called a point). For example if you roll 32 this is not a 5 but one move of 3 and then one move
of 2 or, one move of 2 and then one move of 3 ; the order in which you may move a dice roll can vary depending upon which die can be moved first - more later on this subject. In backgammon if you roll a doublet (e.g. 33, 55 etc.) you can make 4 moves instead of the normal two.
In Diagram 1 above you are 'bearing off', i.e., taking your men off the board at the very end of the game; each man bearing off in relation to the dice roll. E.G. If you roll 32 you remove one man from the 3-point and one man from the 2-point. If you roll a die higher than the highest point occupied, men can be removed from that highest point; that means that if your highest occupied point is your 4-point and you roll 62 you can remove a man from the 4-point (using the 6) and a man from your 2-point.

Doublets allow you to remove 4 men if possible. If you roll a die for a point that isn't occupied then you must, if possible, move within your inner board until a die is equal to an occupied point or is greater than your highest occupied point. If only one die can be moved then the higher is moved if possible.
Exercise 1: Set up your home board as in Diagram 1 and move the following dice rolls bearing off a man each time: 61, 32, 42, 62, your board now looks like Diagram 2 (home board segment):


You now roll 62 again; taking a man off your 5-point (using the 6) and because you don't have any men on your 2-point you now have to move within your homeboard. You want to make certain that you get as many men off each roll as possible and to this end the 2 is moved from the 4 -point to the empty 2-point ensuring that on your next roll you will remove at least 2 men, this tactic is very important when bearing off without the possibility of being hit by an opponent (more on this subject later) and is used in the next exercise. Always try to maximise the men off on the next roll by filling empty points.

Diagram 3


Exercise 2: Set up as in diagram 3 and move the following dice rolls filling empty points when you can't bear off: 22, 64, 11 .

Diagram 3A


Your board should look like Diagram 3A if you've applied the tactic of covering empty points correctly. Now reset to diagram 3 again and practice on your own until you are happy with the bearing off element of backgammon after which we'll tackle the problem of bearing off when your opponent has men that can hit you and force you back to the very start!

## Bearing Off Against Opposition

Whenever a man is hit in backgammon just like ludo he has to go back to the start. A man is hit by an opponent landing upon the same point occupied by a single man of the opposing side; single men are called blots and are very vulnerable to being hit - blots are protected by having two or more men of the same side on a point, this point now belongs to that player and cannot be landed on by the opponent (although, if dice rolls allow, they can be leapt over providing both dice rolls are not blocked).
The 'start' for blots that are hit is the bar or 25-point as it is sometimes referred to (the bar is the central divider between the two halves of the board). The man on the bar can only re-
enter into his opponent's home by rolling dice that correspond to the point numbers in his opponent's home board ( 1 to 6 , which are in fact points 24 down to 19 for the opponent). Being hit and having to restart is true of any blots anywhere, not just the ones you might leave in your home board when bearing off against an opponents man on the bar (or an opponent's man occupying one or more of your inner points after he has re-entered from the bar).

In Diagram 2 you have a blot on your 3-point and in Diagram 3A in exercise 2 you have several blots! This is very dangerous when bearing off against opposition. Many games which should have been won are lost when a blot is hit during the bear off.


Exercise 3: Set up as Diagram 4, with an opponent on the bar. Now, using the same dice rolls as for Diagram 1, 61, 32, 42, 62 it can be readily seen that if we make the same move with the 61,6 off (shown as $6 / 0$ ), $1 / 0$ we leave a blot on the 6 -point. If white rolls a 6 (it must be a 6 not 42 , or 51 or 33 as these are blocked) on his turn he will hit our blot and force us to restart from the bar in his inner board - and, whilst there is a man on the bar, no other piece can be moved until it has re-entered, sort of like rolling a 6 in ludo to start a man.
If you are on the bar and cannot re-enter then no other men can be moved and your move is forfeit. This is often called dancing or fanning and, if you have any blots exposed it is likely that your opponent can hit them too! So, we play $6 / 0(6$ off) and 6/5
(6 to 5) keeping the blot safe.
With this in mind (assuming that white never re-enters on his roll except when there's a blot to hit) play the remaining rolls as safely as you can bearing off when you can and down when you can't: $32,42,62$, and 62 leaving this position.

Diagram4A


Now, it is getting quite difficult to take men off without leaving a blot - do you know how many rolls leave a blot next time? Don't forget that as you are using two dice each roll is in fact two rolls!

To explain: Imagine you are using two different coloured dice, one red, one white and you roll a 32 ; with the red die on 3 and the white die on 2 , but it could be the other way around, white die on 3 red die on 2 and still be only one move, 32. In fact, using two dice there are 36 combinations of dice rolls; so plenty to choose from!
Back to the position in Diagram 4A above: how many of those 36 possible rolls will force a blot? Don't cheat by looking at the correct answer, write them all down. You should have 25 rolls that leave a blot (or a quicker way to do it is there are 11 that don't: 61, 51, 41, 31, 21, and 11). Exercise 4: Practice a few bear offs with a man on the bar setting up Diagram 4 and see if you can avoid leaving blots. It's not always possible to do so, but, often, with a little forethought you can considerably reduce the chances of doing so. This expertise is essential in playing winning backgammon and it is well worth the time taken to master it.
One tip is to try to keep your top two points evenly distributed, looking for the bad rolls next time. As a general guide if you are able to take 66 or 65 on the next roll without leaving a blot then you are almost $99 \%$ certain not to leave a blot on that forthcoming roll - note, not $100 \%$ as on rare occasions blots can be left. Once you've mastered the tactic of bearing off safely against opposition from the bar we'll move to opposition within your home board.

## Diagram 5



Set up your home board as in Diagram 5 with white holding your 1-point with 3 men. Now, using the same numbers as before, $61,32,42,62,62$ bear off safely to arrive at the position shown in Diagram 5A below.


If you calculate how many rolls leave a blot next time, the answer is $6,65,64,54$. Practice bearing off with white occupying two or more points or with a combination of men on points or blots and on the bar; in fact any combination you can think of and keep doing this until you are happy with your bearing off against opposition.

This knowledge is paramount in winning games in which you are leading; without it you will lose them even from such a strong racing lead. Move on to the next section only when you are ready.

## Bearing in safely

As you can see in Diagram 1 the board is divided into four segments with points numbered 1 to 24 , where 24 to 19 are in your opponent's inner board and points 6 to 1 are in your inner board.

The two remaining segments (points 18 to 7 ) are the outer boards; points 12 to 7 being your outer board and 18 to 13 being your opponents outer board.

Like in draughts men are moved around the board in opposing directions, in backgammon one player moves clockwise and the other anticlockwise (you - black). Before we get to the entire board and the opening positions, let's deal with bringing men into your home board from the outer board. Set up as in Diagram 6.


Using the usual rolls, 61,32, 42, 62 bear in (bring men into your home board) safely. Straight away it is obvious that if you play the 6 by playing $10 / 4(10$ to 4$)$ and the $1,7 / 6$ it will leave two blots that white can hit - so that's the wrong move! Remember, if a blot is hit it has to restart off the bar into the opponent's home board, a loss of 24 pips in the race. A pip is the number of dice dots on the face of a die.
The correct move is to play from the 11-point; but; you can't move the 6 to the 5-point because white occupies it, so how do you do it? Easily; remember after diagram 2 I explained that you can move either die first? Well, in this case (and in others no doubt) you move the $1,11 / 10$ and then the $6,10 / 4$. Of course you could have moved $10 / 4$ and $11 / 10$ but I am trying to get you to think about your moves. So, we play 61 as $11 / 10,10 / 4$.
Now for the 32 . We can't play 3 s or 2 s from the 8 - or 7 -points without leaving a blot, so we move two men from the 10-point, 10/7, 10/8 keeping it all nice and safe.
Now, 42; remember that we need to keep (if possible) an even number of men on our top two points and in order to achieve this we need to move one man from the 8-point and another from the 7 -point thus: $7 / 3,8 / 6$. Now, when you roll the 62 it is evident that you cannot move a 6 as white is blocking you by holding your 2 - \& 1-points so all you can move is a 2 . As you
don't want to leave a blot at all, the only 2 you can move safely is $6 / 4$ leaving you in this position:

Diagram 6A


Exercise 5: Although this might be a little contrived, this sort of position does occur. From this position roll your own dice and bear in and off as safely as you can. When you have finished set up the position in Diagram 6 as often as necessary and practice bearing in and off until you are confident with bearing in and off against opposition.

Try to keep any blots you have to leave down to a minimum. Look to the next roll each time and try to predict, using your knowledge of the 36 dice combinations, which is the safer play.

So, now we know how to deal with moving from one table to the other and avoiding wherever possible leaving blots, let's look at the beginning of the game in Diagram 7.

Diagram 7


This is the starting position for you (black) going in an anticlockwise direction; turn the board around to view the starting position for white (you can play in either direction with both home board tables to your left as for white). You are moving all your men around the board into your home board and then off to win-simple! The problem is, white is doing the same
too - and you have to stop him.

You stop white achieving this by blocking his moves by constructing primes (two or more points in a row occupied by one or more of your men). These primes are used to contain your opponent's men and to restrict his movement around the board - but, as you've guessed, he's doing the same!

You know what a blot is and that it is desirable not to leave any so the best way around the board is by making points and, if possible, joining those points into primes. Now, let's look at the standard opening moves.

## The opening moves

To begin a game of backgammon each player rolls one dice into the table on their right-hand side, (never into the table on your left-hand side); and, as long as the die lays flat upon the playing surface (not on top of any men) the player rolling the higher die takes both dice as his opening roll.

If both players roll the same number ( 66,55 or any doublet) then both roll again; this means that you never start the game with a doublet (although the 2nd move - someone's first - can be).

Opening moves are in three categories: 1. Point Makers, 2. Builders and 3. Runners. 1. Point Makers: As the name implies these rolls start out doing the very thing you set out to do, make points. They are (in order of preference):

| 31 | $8 / 5$, | $6 / 5$ | a |
| :--- | :--- | :--- | :--- |
| 61 | $13 / 7$, | $8 / 7$ | b |
| 42 | $8 / 4$, | $6 / 4$ | c |
| 53 | $8 / 3$, | $6 / 3$ | d |
| 64 | $8 / 2$, | $6 / 2$ | e |

a) The best point to hold (called The Golden Point) in either table.
b) The bar-point (7-point) blocks your opponent's 6 s and makes it difficult to escape the back men (the runners).
c) Makes an important inner point.
d \& e) As deep as you really want to be. Perhaps a little too deep (it's better to keep points closer together, but nonetheless, worth making as a beginner (see 6-4 Runner).
2. Builders: Although single men are blots they are also builders for points (as is any spare man on a point or points themselves in many cases) and these are:

| 54 | $13 / 8$, | $13 / 9$ | a |
| :--- | :--- | :--- | :--- |
| 43 | $13 / 9$, | $13 / 10$ | a |
| 52 | $13 / 8$, | $13 / 11$ | a |
| 32 | $13 / 10$, | $13 / 11$ | a |
| 21 | $13 / 11$, | $24 / 23$ | b |
| 41 | $13 / 9$, | $24 / 23$ | b |
| 51 | $13 / 8$, | $24 / 23$ | b |

a) These moves are mid-point builders (13-point) and are only vulnerable to an indirect hit (i.e. the roll of two dice is required to hit - e.g. anything greater than a 6). Although these blots might be hit the benefits are worth the risk - and backgammon is about taking calculated risks. Say you left a blot only 6 points away (a direct shot) from an opponent's man; it will be hit 17 rolls out of 36 , but if you leave an indirect of say 7 or 8 points away then only 6 out of 36 (maximum shots for an indirect shot) will hit. So, when considering leaving blots/builders remember to keep well away from your opponent's men.
b) These are splitting builders, creating builders for the outer/home board and starting a runner (back man) off, the runner threatening your opponent's tables with a possible direct or indirect shot.
3. Runners: These are men played from the 24 -point, your back men. These are:
$65 \quad 24 / 13$
64 24/14 a (This move can also be a 2-point maker.)
$63 \quad 24 / 15$
$62 \quad 24 / 16$

Although doublets are not technically opening rolls they are the first roll for one player. These (if possible) are the standard opening moves:

| 66 | $24 / 18(2)$, | $13 / 8(2)$ |  |
| :--- | :--- | :--- | :--- |
| 55 | $13 / 3(2)$ |  |  |
| 44 | $13 / 5(2)$ |  | a |
| 33 | $8 / 5(2)$, | $6 / 3(2)$ | b |
| 22 | $13 / 11(2)$, | $6 / 4(2)$ | c |
| 11 | $8 / 7(2)$, | $6 / 5(2)$ |  |

a) Alternative 44 moves are moving the back men $24 / 20(2)$ with $13 / 9(2)$ or $8 / 4(2)$.
b) Alternative 33 moves are making the bar point in either table by playing $13 / 7(2)$ or $24 / 18(2)$, or any combination moving 24/21(2) and any other legal move.
c) Sometimes 22 is played as a Golden Point maker by playing 24/20(2).

Exercise 6: Set up the board and practice moving all the opening moves, including doubles until you are adept at making the standard opening moves to such an extent that you don't have to think what to do but do so instinctively.

When you have mastered the opening moves it's time to play a game! This time you are on your own, remember, try to move safely and use (safe) builders to make points and primes as you progress towards the finish.

Keep well away from direct shots and leave as little as possible for your opponent to hit but at the same time remain flexible. Try to have a strategy in mind and be prepared to abandon it when things don't go the way you anticipated; but always have a back-up plan!

Using these guidelines you will soon become addicted to the exciting game of backgammon - and then you'll need to study a few books to improve your game. That's when you'll need to know what to do with the doubling cube (the large 'dice' on the bar with the ' 64 ' face showing in Diagram 7), but, until you master the art of moving, priming, and bearing off the doubling cube will have to wait.

## Dice Tables

Detailed below are the 36 dice combinations. It is well worth committing to memory the figures in this table as they are a very valuable weapon in your armoury.

You don't need to remember what the rolls are, just how many there are.

| 36 Combination Rolls Of Two Dice |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| $\mathbf{1}$ | 11 | 12 | 13 | 14 | 15 | 16 |
| $\mathbf{2}$ | 21 | 22 | 23 | 24 | 25 | 26 |
| $\mathbf{3}$ | 31 | 32 | 33 | 34 | 35 | 36 |
| $\mathbf{4}$ | 41 | 42 | 43 | 44 | 45 | 46 |
| $\mathbf{5}$ | 51 | 52 | 53 | 54 | 55 | 56 |
| $\mathbf{6}$ | 61 | 62 | 63 | 64 | 65 | 66 |


| Dice Rolls That Contain |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Number of rolls | Rolls |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 11 | 11 | 12 | 21 | 13 | 31 | 14 | 41 | 15 | 51 | 16 | 61 |  |  |  |  |  |  |
| 2 | 12 | 11 | 22 | 21 | 12 | 23 | 32 | 42 | 24 | 52 | 25 | 62 | 26 |  |  |  |  |  |
| 3 | 14 | 11 | 33 | 31 | 13 | 32 | 23 | 34 | 43 | 35 | 53 | 36 | 63 | 21 | 12 |  |  |  |
| 4 | 15 | 11 | 22 | 44 | 41 | 14 | 42 | 24 | 43 | 34 | 45 | 54 | 46 | 64 | 31 | 13 |  |  |
| 5 | 15 | 55 | 51 | 15 | 52 | 25 | 53 | 35 | 54 | 45 | 56 | 65 | 41 | 14 | 32 | 23 |  |  |
| 6 | 17 | 22 | 33 | 66 | 61 | 16 | 62 | 26 | 63 | 36 | 64 | 46 | 65 | 56 | 42 | 24 | 51 | 15 |
| 7 | 6 | 61 | 16 | 52 | 25 | 43 | 34 |  |  |  |  |  |  |  |  |  |  |  |
| 8 | 6 | 22 | 44 | 62 | 26 | 53 | 35 |  |  |  |  |  |  |  |  |  |  |  |
| 9 | 5 | 33 | 63 | 36 | 54 | 45 |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | 3 | 55 | 64 | 46 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 2 | 65 | 56 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 3 | 33 | 44 | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | 1 | 55 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 1 | 44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | 1 | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 1 | 55 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 | 1 | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

You can use the second table above to work out how many dice rolls (and what they are) will hit a single blot n points away. For example, a blot 5 points away will be hit by 15 dice rolls (assuming that there are no blocking points between you and your opponent; if this is the case then less the sum will be less than 15).

The easiest blot to hit is 6 points away (17) but the odds on being hit by two men (or having two men hit by a single opponent's man) are considerably more. The next table shows how dangerous a man or men are exposed to a double hit.

The next table shows how dangerous a man or men are exposed to a double hit.

| Double shot Hitting Rolls |  |  |  |
| :---: | :---: | :---: | :---: |
| Numbers <br> that hit | Dice <br> rolls <br> that hit | Numbers <br> that hit | Dice <br> rolls <br> that hit |
| 681 | 24 | 584 | 26 |
| 682 | 24 | 481 | 21 |
| 683 | 28 | 482 | 23 |
| 684 | 27 | 483 | 24 |
| 685 | 28 | 382 | 21 |
| 581 | 22 | 381 | 20 |
| 582 | 23 | 281 | 20 |
| 583 | 25 |  |  |
|  |  |  |  |

As you can see, as many of 20 minimum and going up to 28 dice rolls can hit when exposed to a double hit - something to be very wary of. And of course, the more men you are exposed to the greater the odds of being hit. There's a little maxim often used by backgammon players, "nearest, safest" which means that the closer a blot is to a threatening opponent the safer it is if within direct range and "furthest, hardest" when exposed to an indirect shot (although 12 away is worse than 11 away!).

The inability to enter off the bar can often lead to losing the game and therefore it is advisable to know what rolls will enter and what wont. The next table shows this odds of re-entering with one man against n points closed.

| Entering One Man Off The Bar |  |
| :---: | :---: |
| Closed <br> points No. of Entering <br> rolls <br> 1 35 <br> 2 32 <br> 3 27 <br> 4 20 <br> 5 11 |  |

Quite obviously the more points closed the harder it is to re-enter . . . but not as hard as most beginners think! For example, often new players reckon that if 3 points are closed $(50 \%)$ then only 18 rolls ( $50 \%$ ) will re-enter; this is incorrect.

Take a look at the table showing 3 closed points - a total of 27 rolls re-enter, that's $75 \%$, nowhere near the expected $50 \%$. In fact with as many as 4 closed points you still re-enter with 20 rolls ( $55.55 \%$ ). But, with two men on the bar these odds change dramatically. Look at the next table.

| Entering Two Men Off The Bar |  |  |  |
| :---: | :---: | :---: | :---: |
|  | No. of Entering rolls |  |  |
| Closed <br> points | $\mathbf{2}$ men | $\mathbf{1}$ man | No men |
| 1 | 25 | 35 | 1 |
| 2 | 16 | 32 | 4 |
| 3 | 9 | 27 | 9 |
| 4 | 4 | 20 | 16 |
| 5 | 1 | 11 | 25 |

Huge differences now; at the very best you have 25 re-entry rolls (69.44\%) for both men with just one point closed, expand this to two points closed and it drops dramatically to just 16 reentry rolls that's as little as $44.44 \%$; and, if you are facing a home board with just a measly three points closed with two on the bar then all you have to re-enter with is 9 rolls (25\%), which, if you reverse the math means you don't enter $75 \%$ of the time!

So, remember this table because it is well worth knowing just how bad/good it is to have two men on the bar with just a couple of points made.
I don't suggest you commit these entire tables to memory but if you can just remember half your game will improve. This is basic information that is essential to understanding the probabilities of dice rolls and their repercussions.

## Last Checker Bear off-Rule by Stefan Gueth, Germany

If you have a choice, always move the checkers at the most possible equal distance to each other. Remember: the farther or the nearer than 1 point in between, the less numbers to bear off in one roll.
Example:
7 pip position
1 checker each on the 2 point \& 5 point: 19 numbers to bear off in one roll.
1 checker each on the 3 point \& 4 point: 17 numbers to bear off in one roll.
1 checker each on the 1 point \& 6 point: 15 numbers to bear off in one roll.

## Opening rolls by Peter Max Friis Jensens

In this field even experts do not agree but on these pages you might find some interesting comments. The comments might even teach something more general about the initial part of the game. All plays are ordered after my preferences inspired by GNU Backgammon evaluations and rollouts. Thus I think the first alternative is the strongest play for money.
In matches the correct checker play will sometimes differ with varying gammon prices (see my page on doubling where gammon prices are explained). To include this aspect I need some notation:
Notation DMP Double Match Point. This notation is used for my recommended checker move given that both players have no need for a gammon (have a gammon price on 0 ) and the cube is dead.

In a DMP game you tend to aim more for a racing game than in a normal game (especially if you are the race leader). I.e. non connected points have marginally less value and you tend to race more with your back checkers. You less frequently play with a backup game plan (e.g. you more rarely initiate plans on both sides of the board at the same time). Sometimes it is correct to play the pretty checker move aiming for a prime (countering a racing game from your opponent) e.g. by slotting important points. The reason is that the gammon does not count and that you will not get doubled out. Back games or even ace- or deuce-point games are more playable in DMP for the same reasons. The points deep in your opponent's homeland often have almost the same value as an advanced point. GG Gammon Go. This notation is used for my recommended checker move given that you need a gammon bad corresponding to a gammon value on 1 , a price on 0 and a dead cube.

In a GG game you aim more for a priming/blitzing game than in a normal game. I.e. offensive points have more value and you tend to split less with your back checkers but prefer offensive flexibility and ammunition. You even pay less attention to the order you make your points in. GS Gammon Save. This notation is used for my recommended checker move given that you need to save gammon bad corresponding to a gammon price on 1, a value on 0 and a dead cube.

In a GS game you aim more for a holding game than in a normal game. I.e. advanced points in your opponent's homeland (defensive points) have high priority and you split early. This is a precaution to secure that you have something non gammonish to fall back on.

White to play the starting roll.
The following list is of the starting rolls and the best moves.
1-2: $24 / 2313 / 11$. If white is behind in a match $13 / 116 / 5$ (DMP/GG!) is playable.
1-3: 8/5 6/5 (no contest).
1-4: $24 / 2313 / 9$. Some like the old fashion $13 / 96 / 5$ but it is infirior.
1-5: $24 / 2313 / 8$. If white is far behind in a match $13 / 86 / 5$ (GG?) is playable.
1-6: 13/7 8/7 (no contest).
2-3: 24/21 13/11. Some like 13/11 13/10 (GG!).
2-4: 8/4 6/4 (no contest).
2-5: 24/22 13/8. Some like 13/11 13/8 (GG!).
2-6: 24/18 13/11 (no contest).
3-4: $24 / 2113 / 9,13 / 1013 / 9$ (GG!) or 24/20 13/10 (DMP/GS!). Some even like 24/21 24/20 (DMP?).
3-5: 8/3 6/3 (no contest).
3-6: 24/18 13/10. Some like 24/15 (GS?).
4-5: 24/20 13/8. Some like 13/9 13/8 (GG!) or even 24/15.
4-6: 24/18 13/9, 8/2 6/2 (GG!) or 24/14 (DMP/GS).
5-6: 24/13 (no contest).
The exclamation marks (!) illustrate a clear choice (to me) inspired by computer evaluations/rollouts. The question marks (?) illustrates that the choice is only marginally wrong according to computer evaluations/rollouts.
Gametypes
The following considerations about the mid-game are very rough and subject to many counterexamples.
You should never like to play back games as beginner! Do not aim for them before all your front game plans have failed. Sometimes play with a plan that keeps the back game as an option if the main plan fails.

The other game types can be said to have a loose triangular relation.
If your opponent tries to race past you establish a prime and try to hit him (aim for a priming game) (GG/DMP).
If your opponent plays a priming game the most effective countermeasure is to establish a holding game (GS).
If your opponent plays a holding game you should try to race past him without giving shots (DMP).
Of course backgammon is not that simple but this triangle is a good basis to establish heuristics from. Backgammon is basically a racing game but it is more complex than that. This triangle might help you to understand the game better.

Often games develop to race vs. race, holding vs. holding or prime vs. prime positions. Here timing is very important.
The simplest consideration is in the race vs. race game where you simply want to be in front (have less timing).
Holding vs. holding is a game type where both players try hard to avoid giving shots. They typically try to wait for a shot or a double roll. The race leader will have the
initiative to develop the position into a race (he often does not have a choice with less timing than his opponent). His opponent tries to hold his position, hit a shot and prime or race.

In prime vs. prime the timing is extremely important. The players try to jump (escape) the opponents prime and convert the game in to some type of bad back game for the opponent. This is often not easy and the alternative plan is to gain or hold on to timing and thereby let the opponent crunch up, lose his prime and then jump it. Gaining timing might involve recirculation of checkers, seek out positions with dead numbers (e.g. dancing numbers) or avoid your opponent following these strategies (sometimes including not hitting shots).
Both the last game types can be very complex but the latter might invite larger mistakes.

## THE PIP-COUNT OF MONTE CRISTO BY MICHAEL CRANE

I had planned to call this article, The Pip-Count of Michael Crane, but it didn't have the same effect as the title it now bears! I'm not suggesting that the Count of Monte Cristo actually played backgammon; I'm just being clever with words ;-)

Mind you, this is a serious article and one which will improve your backgammon tremendously. Of course; if you can already do your own pip count quickly in your head and not forget it after you've done your opponents' pip count, then this article is not for you. But, if pip counting is alien to you or you find the mathematics of counting all those checkers on all those points just too much work; then read on for some handy shortcuts.

During any game of backgammon, knowing the pip count can be a great advantage as many decisions throughout the game are based upon knowing it. If you don't know the pip counts when needed you're going to be at a disadvantage - you might well lose the game or match through your ignorance; it's that important!

Just to get you in the mood, here are four little pipcounting problems for you:


Diagram 2



If you took more than a couple of seconds working out Diagrams $1 \& 2$ then you really need to read this article; and if you took more than five seconds each for Diagrams $3 \& 4$ then keep reading. The answers:

Diagram 1: 100
Diagram 2: 80
Diagram 3: 110
Diagram 4: 119
Did you spend all your time counting every checker on every point and adding them all together? This is called the Direct Method and is very tedious. Well you didn't have to do it that way, there are several shortcuts to assist you in this thankless task.

One of the easiest counting shortcuts is..

## OPPOSITES

This is when two checkers are positioned exactly opposite each other in the same table (home or outer) as in:


Wherever two checkers are lined up as above then they will always have a pip count of 25; it doesn't matter what points they occupy, it will always be 25 pips. If there is more than one checker on a point then each one counts as 25 . Now, look back at Diagram 1 and you'll see that the quickest way to count is that we have three blocks of opposites, two of which total 50 ( $1 \& 24$ and $13 \& 12$ ) and one block that totals 50 (19\&6); therefore, quickly as a flash we see that the pip count is 100 . In fact, when you've finished this article and come to understand pip counting short cuts you'll have worked it out as $4 \times 25=100$ in about 2 seconds at the most. This is much faster than $24+19+19+13+12+6+6+1=100$.

Another short cut method for quick counting is in:

## BLOCKS

This is when a block of checkers are used to determine a base number and then adjustments made to compensate for gaps or vacant points. Look at the following Diagrams:


A block of 10 checkers will always total 30 pips.


A block of 8 checkers will always total 20 pips.


A block of 6 checkers will always total 12 pips.
As can be seen from the point numbers these totals only work for checker blocks connected to the 1-point. When the blocks are higher up the board adjustments have to be made. Whenever there is a vacant point below the block, the pip count is increased by as many checkers in the block as there are vacant points. Look at Diagram 9. As you already know a block of ten checkers equals a pip count of 30 pips.


Diagram 9
With just the 1-point vacant the pip count of 30 is increased by $1 \times 10$ (vacant point $x$ checkers in block) $=10+30=40$. So, very quickly you can count any block anywhere. If the block had been eight and there were two vacant points then the count would have been $2 \times 8$ (vacant points $\times$ checkers in block) $=16+20=36$ pips. So, for each vacant point add the number of checkers in the block to the base number. This is true of blocks straddling the bar or the outer tables - anywhere you can find a block of checkers.

Take another look at Diagram 2. You should now see this as two separate blocks: one of opposites (19\&6) and one of a block of $10(6$ to 1$)$. The opposites total $50(2 \times 25)$ and the block totals 30 ; therefore very quickly we can calculate 80 pips.

Now look again at Diagram 3. Quite clearly we have a block of ten that will have a base of 30, plus three vacant points @ 10 pips each = 60 total for the block; but how do we calculate the remaining four checkers? To make things a little clearer let's have a look at a section of Diagram 3 on its own.


Here we can now see an offset opposite. The single checkers on the 11- and 9-points form a triangle with the two checkers on the 15-point; this is akin to moving the two single checkers onto the 10 -point and adding up the opposites to a total of 50 pips making a grand pip count of 60 (block) +50 (opposites) $=110$ pips.

When doing a pip count look for blocks and opposites as these are the easiest of checkers to count. Offset opposites are sometimes a little 'out of sync' inasmuch as you might need to make a mental adjustment now and again to contrive one but generally this isn't too hard after a little practice.

Look once again at Diagram 4 and see if you can work out the pip count the easy way using blocks and opposites..... Couldn't do it? Sorry, I haven't explained how to account for gaps within your block, have I?

Well what do we already know? We have a nice easy opposite of 25 pips. We have a block of ten so they have a base of 30 pips. So what we don't know is what block adjustments we make for the vacant points 6 to 1 (ignore the checker on the 1-point, he's part of an opposite) and the gap on the 10 -point. Well, the principle of counting vacant points and multiplying them by the number of checkers in a block is still relevant, but it is slightly altered. If you look closely at the block of ten it is in fact two blocks; one of four and one of six. There are six vacant points (ignore 1-point checker) for the block of six and block of four (ten in total)
which is $6 \times 10=60$; and there is one vacant point (gap) between the two blocks for the block of four which is $4 \times 1=4$; so the total pip count is: 30 (base) +64 (adjustments) $=94$ (block total $)+25$ (opposites) $=119$ pips. Look at Diagram 10. Gaps galore. Vacant points below and gaps in between; how on earth do we do this one?


Diagram 10
We are still using a block of ten with a base of 30 so that's where we start. Adjustments are made for each vacant point or gap where each one is multiplied by the number of checkers above it in each case; thus:

Ten block 30
Four gaps of 1040
One gap of $8 \quad 8$
One gap of $8 \quad 4$
One gap of $8 \quad \underline{2}$
Total pip count 84
Ah, if only backgammon positions were so easy all of the time! Unfortunately they aren't so you'll have to work at this method of counting until it is second nature to you. It will occur, I promise.

If you aren't happy with this method of block counting, try the ... Centre-point Block Counting Method.

## CENTRE-POINT BLOCK COUNTING METHOD

As the name implies, blocks are counted using the central point of the block (odd blocks are easiest but even ones can be calculated). Look at the next diagram:


Diagram 11

Firstly we need to identify the central point, in this easy example it is quite obviously the 4point. Now, imagine levelling off all the checkers onto the one, central point. Now, any idiot can multiply ten by four can't they? So, just by identifying the central point and using your brain a little you can count blocks in a twinkling of the eye.

As I said, this method works easily for odd blocks but even ones require a little more brain power - but don't panic; it's not that hard! Look at this:


Diagram 12
The central point for this block is 8.5 ; so simply multiply the checkers (8) by 8.5 to get 68 ; simple isn't it? Mind you, this example is quicker using the block method $(20+48=68)$ but I'm sure you get the idea. With a little practice and lateral thinking odd blocks, even blocks and blocks with gaps can all be counted quickly using the central point method.

Blocks and Opposites are not the only short cut counting methods. Here's two further examples which I reproduce from Paul Magriel's excellent book, Backgammon with acknowledgements to Paul and his publishers (X22 Publishing for the new, reprinted soft back version).

## COMPARISON METHOD

This method of finding the pip count gives us the same result as the direct method. It provides a running total of the pip count. The comparison method is preferable to the direct method [and the block and opposites methods] because it eliminates the need to figure out and then compare two separately totalled sums.
Using the comparison method, you compare the number of checkers that you and your opponent have on corresponding points. You subtract the number of men your opponent has from the number of men you have. Then you multiply this difference by the number of the point you are comparing. You now have a pip count for a particular point. If you have more checkers on the point than your opponent, you will end up with a plus pip count; if you have less, you will end up with a minus pip count for that particular point.

As you compare each pair of points in turn, you keep a running total of the pip counts for each point, subtracting a pip count when you have less pips than your opponent, and adding when you have more. When you have finished comparing the sets of points, the final running total will indicate the complete pip count for the entire position. If it is plus, you are behind; if it is minus, you are ahead.

Let's use the comparison method to determine the pip count in


Diagram 13

| Point \# | White <br> men <br> on pt | Black <br> men <br> on pt | Black men <br> White men | col. $4 \times$ col. 1 | Black running total <br> of pip count |
| :--- | :---: | :---: | :--- | :--- | :--- |
| one | 2 | 2 | $2-2=0$ | $0 \times 1=0$ | 0 (even) |
| two | 3 | 2 | $3-2=+1$ | $1 \times 2=+2$ | +2 |
| three | 0 | 2 | $0-2=-2$ | $-2 \times 3=-6$ | $+2-6=-4$ |
| four | 0 | 2 | $0-2=-2$ | $-2 \times 4=-8$ | $-4-8=-12$ |
| five | 0 | 2 | $0-2=-2$ | $-2 \times 5=-10$ | $-12-10=-22$ |
| six | 4 | 2 | $4-2=+2$ | $2 \times 6=+12$ | $-22+12=-10$ |
| seven | 3 | 0 | $3-0=+3$ | $3 \times 7=+21$ | $-10+21=+11$ |
| eight | 1 | 0 | $1-0=+1$ | $1 \times 8=+8$ | $+11+8=+19$ |
| thirteen | 2 | 3 | $2-3=-1$ | $-1 \times 13=-13$ | $+19-13=+6$ |

The final total indicates that Black is +6 , or 6 pips behind in the race against White.
Experience has shown that the comparison method is usually quicker and more reliable than the direct method - especially when the positions of the two players are similar.

## MENTAL SHIFT METHOD

This method is a modification of the comparison method. In this case you mentally move men of one player to make a position identical with the other player. Then you count the number of pips you had to move each checker to make the positions identical. If you have to move your men toward your home board, you add the number of pips; if you have to move your men away from your home board, you subtract the number of pips moved.

In Diagram 14, we have indicated how a few of Black's men may be rearranged to yield identical positions with White. In order to make the positions identical, we must move Black's men a net total of 7 pips forward, so therefore Black is 7 pips behind in the race.


$$
2+2-1+3+1=7
$$

The advantage of this method is obvious - with practically no work or calculation, you get the total pip count in a matter of seconds. For those who hate having to remember and total long strings of numbers, as the author does, this is a real blessing.

The disadvantage is that there is no set way of determining which checkers to move to make the positions identical. Furthermore, there may be many different ways to shift the men to arrive at identical positions.
To determine when to use this method, study various positions and find the one where the fewest checkers need be moved to make Black's and White's positions identical. When the two positions are entirely dissimilar, the number of men to be shifted may well make this method more trouble than it is worth. With practice, however, it is often surprising hoe few checkers have to be moved to equate the positions.

Paul Magriel wrote the above segment in 1976 and it is still good advice today. Many backgammon players and authors have invented their own system. Here's one from a Biba member, Richard Howes:

## THE RICHARD HOWES COUNT

At first glance this method might look very complicated, but, if you can multiply by six then you shouldn't have any difficulties. The count is done in two steps:


1. Start with a pip count of 15
2. Deduct 1 for each checker in the home board on the points indicated by a minus sign (-). Thus in Diagram 15, $15-4(4 \times 1)=11$.
3. Continue adding to the pip count as indicated by the plus signs (+); $11+10(3 \times 1+2 \times 2+1$ $\mathrm{x} 3)=21$.
4. Multiply this total by six; thus $21 \times 6=126$ pip count so far.

5. Starting in your own board, add the amount indicated for each checker occupying that point; thus in Diagram 16, $126+26(4 \times 2+5 \times 2+4 \times 1+2 \times 2)=152$ total pip count.
Here is another example for you to work out on your own. Cover up the text after the board and see if you can get the correct pip count for both sides.


Count for Black:
Step One: 15-9 = 6 + $2=8 \times 6=48$
Step Two: $48+42=90$ pip count for Black
Count for White:
Step One: $15-9=6+2=8=48$
Step Two: $48+30=78$ pip count for White
So, did you understand Richard's method? It looks cumbersome but, once you understand what to add and subtract it really is quite straight forward.

So far all the methods I've shown are only useful for part of the game. The pip count worked out using these methods are not much use when both sides are bearing off due to a lot of wastage on the lower points. Often a game or match can be decided on a correct doubling decision during this crucial period, therefore, we move to ... the Thorp Count

## THE THORP COUNT

This method was invented by the famous Edward O. Thorp for making doubling decisions in pure race games. It is a modification of the basic pip count which takes into consideration some elements of checker distribution. Here's what you do:

1. Total up your pip count using your preferred method.
2. Add 2 pips for each checker you have left on the board.
3. Add 1 pip for each checker on the 1-point to get a total amount.
4. Deduct 1 point for each point you occupy in your home board.
5. Add $10 \%$ to your total if it is more than 30 to get the Thorp Count.

Now do the same for your opponent, but do not add 10\%. Then compare so:

- Double any time your count does not exceed the opponent's by more than 2 .
- Redouble any time your count does not exceed opponent's by more than 1.
- Accept if your count does not exceed doubler's by more than 2.

In this next example the pip counts for each are, White 31, Black 29; so, in a pure count it is very close ... or is it? Let's do a Thorp Count:


Diagram 18
White on roll
Cube Action?

The count is as follows:

|  | White | Black |
| :--- | :---: | :---: |
| Pip count | 31 | 29 |
| 2/checker | 22 | 22 |
| add 1/ace | 5 | 7 |
| minus 1/home point | 6 | 3 |
| Total so far | 52 | 53 |
| add 10\% White | 5 |  |
| Thorp Count | 57 | 53 |

So, it isn't a double, but it is a take. JellyFish 3.5 confirms, No Double/Take. As far as I am aware the Thorp Count isn't $100 \%$ accurate but it is useful to have in your counting repertoire.

Our next method is one devised by Bob Hoey, he's called it ...

## THE HALF ROLL METHOD

The half roll count to is to determine the equity in a race and is not an accurate pip count; nonetheless it is effective for determining who is leading in the race. Bob uses the average roll to work out the count.


Since the average roll is about 8.3 or thereabouts, once could say that any checkers on the 7 - to 10 -points are half a roll from coming in. Checkers on the 11- to 14-points are a roll each from coming in. Checkers on the 15 - to 18 -points are a roll and a half from coming in. Checkers on the 19 - to 22 -points are two rolls from coming in and a checker on the $23-24$ - or the barpoints is two and a half rolls from reaching home. It is a much quicker calculation as to who has more half roll to get home. Having determined the race to home by this method, then one has only to consider the distribution in the home board. Also take a half roll from your opponent's count if he is on roll (if he were doubling, that is).

Another method is one (probably) devised by Mark Denihan. This one uses crossovers and sixes (and blocks) to determine the count. Mark calls it . . .

## THE CASTING OUT CROSSOVERS METHOD

The fundamental idea is that to move a checker from one quadrant to the same position in the next quadrant takes six pips. So if you count all of the crossovers needed to bring all your checkers into your home board and multiply this number by six you have reduced each quadrant into a home board position with pip count values of 1 to 6 . Then you need to recognise patterns of ten pips; such as two checkers on the 2-point and two checkers on the 3point, and just keep adding these tens onto the first number you obtained when you multiplied by six. Finally add on the few extra pips that did not fit conveniently into the patterns of ten. That's it. Gone is the problem of trying to multiply and add or subtract different groups of numbers or keep mental shifts in your memory. It's easy for us humans to increment by tens.

Finally, here's one method that seems so simple; that is until you're hit and placed on the bar. This is...

## THE RUNNING TOTAL DIFFERENCE METHOD

Look at the starting position:


Don't bother doing a pip count, trust me; the pip count for each player is 167 pips. All you have to do in this method is keep a running total of the difference between you and your opponent. For example, you roll 31, therefore you are four pips ahead; your opponent rolls 65 and you drop down to seven pips behind, you roll 55 and go into the lead with 13 pips ; and so on and so on. Now, you might just think that this is by far the best method you've come across; it's so easy, all you need to do is add and subtract; and the biggest number you'll have to deal with is thirty-six. Don't fall for it. It is nigh impossible to keep up to date; being hit back onto the bar, dancing with half a roll, both of these will complicate matters - but if you don't believe, have a go! Another method using the starting pip count is...

## THE RUNNING TOTAL METHOD

Just like the method above except this time you keep your own pip count in your head rather than the difference. Not much use and far more difficult than the difference method. Don't even try this one!

There are no doubt other short cuts to pip counting, and, if and when I come across them I'll add them to this article but for the moment there should be enough here for you to develop a system that suits you. No one system is better than the others, the best system is a hybrid of one or more methods; find the one that suits you the best and then practice, practice, practice.

So, you've mastered counting, but have you figured out how to keep the score in your head whilst counting your opponent's pips? This is perhaps the hardest thing to do; you get your own count, you get your opponent's count, and then you find you've forgotten your own
count! As it is illegal to write down the pip count devious methods have been invented by some clever people using an aid that no-one can take away from you - your hands! Here are three examples:

## PALM UP - PALM DOWN

Place your right hand face down on your leg and count 1 to 5 with 1 being your thumb; turn your hand over and count 6 to 9 starting with the little finger and ignoring your thumb. Do the same for the tens with your left hand. To record your pip count all you need do now is identify your tens finger and your singles finger and there you are. Perfectly legal.

## THE CURLY FINGER

Count one side, and then store the answer on your fingers in your lap to save having to remember it while counting the other side. It's really easy to do this. Record the tens on your left hand, one finger down for 10, two for 20 etc.; one down curled up for 60 , two for 70 , etc. Same for the units on your right hand. Once again to record your pip count all you need do now is identify your tens finger and your singles finger and there you are. Another easy one. Finally ...

## THE BOARD \& FINGER

This sounds like one of those trendy pubs that have mushroomed up in the last few years (awful places in my opinion). But this is a really easy method and you don't have to contort your fingers in the process. Quite simply make use of the points on the board. Use a thumb to indicate tens and a finger to indicate units; so for a pip count of 86 place your left thumb near the 8 -point (80) and your right finger near the 6-point (6); and there you are, eighty-six. When the count is greater than 129 (thumb near 12-point, finger near 9-point) then use your knuckle to indicate tens and keep the finger for the units. With this method there isn't any need to cross your hands over for awkward counts just keep fingers for units and thumbs or knuckles for tens and you can go up as high 252 (knuckle near 24-point, finger near 12-point).
So, we are now at the end of this lesson in pip counting. If you've followed and understood what I've been on about, counting over the board will become second nature to you. It really isn't difficult and is very worthwhile - especially if you know how to do it and your opponent doesn't. Before we finish, here are a few tips and extra short cuts.

## Tipps

- When pip counting start at the high end; it's easier to do $3 \times 23$ and then add on $4 \times 4$; than do $4 \times 4$ and then add on $3 \times 23$.
- Two checkers on each home board point totals 42 pips. Or, put another way ...
- A six-prime block is 42 pips.
- Checkers on the bar are 25 pips each.
- Two checkers on each of the 13- and bar-points total 40 pips.
- Turn off the pip counter in JellyFish and Snowie and practice counting positions and then confirm accuracy by turning it back on again.
- Your opponent's 5-point is 20 pips away.
- Your opponent's bar-point is 18 pips away.
- Keep calm when counting and don't get distracted.
- Practice, practice, practice.

I would like to acknowledge the following for their assistance: Robin Clay, Paul Magriel \& X22 Publishing, Richard Howes, Edward Thorp, Patti Beadles, Bob Hoey, Mark Denihan, Stephen Turner and Tom Keith.

## A LOOK AT THE GOLDEN POINT by Michael Crane

Michael Shelton was the originator of the statement, "One for Robin", which was always exclaimed aloud whenever he (or his opponents) made the Golden Point. A lot of players 'misplace' the Golden Point thinking it is their own 5-point when in fact it is their opponent's 5 -point (the 20-point). Of course, your own 5-point is your opponent's Golden Point. OK, it's the 5-point, that's the quick answer!

Ever since books on backgammon have been written the 5-point has always been the point to make. Here's what some top (and perhaps, not so top) authors have to say on the subject:

Backgammon by Paul Magriel: You can gain a large measure of security throughout the game, however, by making a single point. This is your opponent's 5 -point, called the Golden Point. It is the most important point for you to establish in the game.

Winning Is More Fun by Jeff Ward: The choice of making the bar-point or the five-point is a common one in backgammon, particularly during the opening stages of the game. In almost all cases the correct play is to make the five-point.

Backgammon - The Action Game by Prince Alexis Obolensky \& Ted James: This is a good roll. The player has made a point on his five-point, considered the most important on his home board, and has created an additional block against his opponent.
Paradoxes \& Probabilities by Barclay Cooke: The one basic early tactic which should supersede all others is to do everything in your power to make both 5-points, especially your opponent's as soon as possible - as long as you hold this point you can afford daring manoeuvres.

On Backgammon by Phillip Martyn: The most important points on the board on the two 5points, your own and your opponents.
and finally;
Teach Yourself Backgammon by Robin Clay: This group, unlike the safe point-making throws, involves you in taking a risk by leaving a blot on your 5-point, thus giving you a chance to cover it on your next turn, to gain control of your vital 5-point.

An early assault on either 5-point is essential and making them are worth the risks involved in the early stages of the game. Taking control of your own 5-point is vital in establishing two consecutive inner board points and robbing your opponent immediately of an advanced anchor or a safe advanced re-entry off the bar. Making your opponent's 5-point will cleave a hole in his inner board prime that will prove impossible to shift until you either elect to move (to your benefit) or are forced to move by circumstances. Control of either or both gives you a considerable advantage in the game and the importance of the Golden Point should be paramount in your strategy.

So, is it correct to make the Golden Point in all circumstances? Look at this position:


Here, White rolled an opening 41 and aggressively played $13 / 96 / 5$, launching an early attack on your Golden Point. Should you ignore his efforts and make his Golden Point (your 5point) or hit him? The answer is to hit him. Why? Because if he is allowed to make this point next roll he will have robbed you of the opportunity to hold it and will have made two vital points in his inner board. If this is the case then why not make your own 5-point? Well let's
not forget what we are discussing here; whether or not to make the Golden Point, not the 5point. Given the choice (nearly) always go for the Golden Point before your 5-point. In this position not only will you be frustrating his attempt to make his 5-point but you will be knocking him back a long way in the race - and giving yourself a possible 15 rolls next time to make the point yourself.

Remark by Stefan Gueth: to clarify terminology, again: the Golden Point is your holding point (anchor) your 20-point and the 5-point is your 5-point!

Holding the Golden Point gives you tremendous opportunities. Men placed on the bar cannot be kept on the bar and can be re-entered safely; and any spare men on here can be used to hit outer board blots without giving up the stronghold.
In Magriel's Backgammon he argues the case for making the Golden Point when you feel that your back men are in danger of being trapped; as in this position:


Black to play 22
Here Magriel advocates making the Golden Point as White's earlier play of 32 moving 13/10 $13 / 11$ is threatening to make it next roll with any of 15 possible rolls. However, when we look at JellyFish best moves for this position on Level 7 we see that making the Golden Point only comes out 3rd best:
0.125

13/11(2),
6/4(2)
0.121

24/22(2,
6/4(2)
0.113

24/20(2)
This would have us believe that the standard 22 move of $24 / 20(2), 6 / 4(2)$ is favourite and when a truncated rollout is done JellyFish still rates the Golden Point move as 3rd, and with an increased margin:

| 0.141 | $13 / 11(2)$, | $6 / 4(2)$ |
| :--- | :--- | :--- |
| 0.118 | $24 / 22(2$, | $6 / 4(2)$ |
| 0.106 | $24 / 20(2)$ |  |

So, what is a player to do? The best advice is that until you have gained more experience in
the game make the Golden Point. Give it top priority when given the choice to make it or to prevent an opponent from making it.

So, you decide to make it...when do you decide to leave it? Too many players leave it too soon - often tempted into doing so by a more experienced opponent setting up blots just for that purpose. If you do leave it you have to get something very good in return.

Would you leave the Golden Point in this position?


White has played from his mid-point and left you a great shot with any five, so what are you waiting for, hit him! Well if you did hit him you've just made a big mistake. You only hold the 6-point in your inner board and unless he rolls double six he's going to re-enter easily, perhaps with a return shot and that'll leave you on the bar facing three closed points. In fact if he rolls 33 you'll have two men on the bar and will be facing four consecutive closed points! The play here is to ignore the blatant attempt to lure you off and to play safely $13 / 8$.

Remark by Stefan Gueth: the correct play is here to make the 9-point with 13-9/10-9. White has split the runners, it will be difficult for black to make inner board points and by holding the Golden Point black is aiming for a holding/priming game, so black has to start the prime or will quickly face a devastating cube if white can make an advanceed anchor himself or bring at least one runner to safety. The stack-play 13-8 is a safe beginners play, but nonetheless incorrect.

So, you didn't hit him then but what about now?


Black to play 41
White has played from his mid-point and left you a great shot with any five, so what are you waiting for, hit him! Well if you did hit him you've just made the correct play! This time he has two inner board blots and therefore the risk to you is less. If he does re-enter and hits you onto the bar you're going to have at least one blot to aim at if not two.
Leaving the Golden Point is all about risk and gain. Before you do it ask yourself. "What is the risk to me? What do I gain?" If you think you have more to lose than you have to gain, don't leave it. Remember, whilst you hold this very valuable point you are unlikely to be gammoned; you are covering the outer board; you can take more risks elsewhere on the board because you will always have a safe haven of re-entry off the bar; you will make it impossible for your opponent to form a continuous prime; you will make it difficult for your opponent to clear his mid-point should he be ahead in the race.

All these benefits from holding just one point - not bad, eh? Mind you, these benefits can also count for your opponent if holds his Golden Point. So, in the early stages of the game it is essential you make every effort to make either or both 5-points or to thwart your opponent's attempts to occupy them. No other point on the board is worth more.

## (CU)BE A PRAT (Handling of the Double Cube) by Alan Webb

I became well and truly hooked on the fascinating game of backgammon three years ago. So much so, I decided to incorporate another hobby, that of web design, with my passion for backgammon and created Webby's Backgammon Site in 1999 which has since become quite popular. I continually update my backgammon web site which offers five positional quizzes, tips for beginners, annotated matches, links etc. I play most of my backgammon online at GamesGrid (Alan Webb) and just can't get enough of the fascinating and at times cruel game. I'm considering dipping into the world of tournament play this year sometime *gulp*. During a recent exchange of views on the newsgroup, rec.games.backgammon, I was prompted to write the following, which, Michael Crane and the MSO web team decided deserved a wider audience.

In his book, Improve Your Game, Paul Lamford uses the acronym PRAT as a guide to doubling and accepting:

PRAT stands for - Position, Race And Threats
Paul recommends doubling when you have an advantage in two of these three areas. If you have a clear advantage in all three, then your opponents should pass.

I just want to add a little more about the PRAT method. First of all it is easy to remember as you just ask yourself not to be a PRAT on doubling decisions. "Prat", in English, English is a derogatory term meaning "Idiot".
Since I read Paul Lamford's book, about six months ago now, I have used this method pretty much extensively. I tested it in fact recently against the doubling positions in Robertie's 501 Essential Backgammon Positions by not relying on experience but simply solely using the method described. I found that the results were impressive and I made a marked improvement from when I first tried them using just experience, especially in contact positions.
I have tweaked the general principal slightly myself in that I attach weightings to each of the three main areas. Meaning for example, if all things being equal, I will weigh in the pip count higher than the threat and position areas. I also take good account of the score in match play and gammon potential both ways.

The method itself is not that much good to a real beginner however as you still need to know if your position is in fact better and still need to know if you have any threats and what they are. For those with a reasonable understanding of the game, say 1550+ I believe it can help a long way. It isn't perfect as there are some positions where other factors override the result of the method, particular prime vs. prime positions, but it has helped my game along nicely and I'm making far fewer doubling errors than I used to.

Just to illustrate things let's see the guidelines in action...

Position 1:
3 Point match: White 0 Black 0
White on roll, Cube Action?
Pip Count: Black 150, White 132

|  | Black |  | White |
| :--- | :--- | :--- | :--- |
| Position | $*$ | $*+$ | Better board, high anchor <br> White is 18 pips ahead and |
| Race | - |  | on roll |
| And |  | $* *$ | Positioned well to make the bar- or 4-point. |

From the above we gather that White has the better Position, is ahead in the Race And Threatens to make the bar- or 4-point.

So if we use the criteria that three areas in your favour should be double/pass, then the correct cube action must be double/ pass. Snowie agrees...

Snowie
1.Double, pass
1.000
2.No double
0.920 (-0.080)
3.Double, take

Proper cube action:
1.210 (+0.210)

Double, pass

How about this one...

Position 2:

3 Point match: White 1 Black 1<br>White on roll, Cube Action?<br>Pip Count: Black 143, White 148

|  | Black | White |  |
| :--- | :--- | :--- | :--- |
| Position | - | $*$ | Better board, 11-point |
| Race | + | - | White trails by 5 pips |
| And |  | $*+$ | Pointing on the 5- point, hitting on 21-point, 2 <br> checkers up |
| Threats | - |  |  |

So White has two out of the three areas which according to the general rule is a double/take. Snowie says...

Snowie
1.Double, take
0.732
2.No double
0.666 (-0.067)
3.Double, pass

Proper cube action:
$1.000(+0.268)$
Double, take

Last, but not least...


Position 3:

## 5 Point match: White 0 Black 0

White on roll, Cube Action?
Pip Count: Black 108, White 113


So what we have here is two out of three of the areas so according to the guideline this is a double/take right? Wrong!

Snowie
1.Double, pass 1.000
2.No double
0.731 (-0.269)
3.Double, take
1.151 (+0.151)

Proper cube action: Double, pass
Here the Position and Threats are so great that they override the small Race pip deficit. Gammons are another factor and Black is so inflexible with buried checkers and ...etc etc. If you are going to use the method then look out for positions where one area clearly overrides the others.

Remark by Stefan Gueth, order of weights: Threats ${ }^{* * *}+$, Position ${ }^{* *}+$, Race ${ }^{*}+\left({ }^{*}>8 \%,{ }^{*}+>12 \%\right)$ [ $=$ of primary importance, $+=$ of secondary importance, $2(+)$ equal one ( ${ }^{*}$ ), net amount: $\left.\left.\left(^{*}\right) N D / T,\left({ }^{* *}\right) I D / T,\left({ }^{* * *}\right) R D / T,\left({ }^{(* * * *}\right)\right] D / P,\left({ }^{* * * *}+\right) R D / P,\left({ }^{(* * * *}\right) T G T D / P,\left({ }^{* * * * *}+\right) T G T R / P\right]$

## Bear-off no-contact Basics by Peter Max Friis Jensen

Do not always trust computers! Therefore the following positions is only simple reference bear-off positions, where I have been able to get an exact answer.
[Simple cube handling | This might come as a surprise | Greedy Bear-off | Fill holes and unstack heavy points | Artificial holes \| Avoid the gammon | Do not trust computer programs! | Practical computer programs ]

## Simple cube handling

Money Game. Blue on roll. Cube Action?


The answer is double/drop! The 3 roll position.
Money Game. Blue on roll. Cube Action?


The answer is double/take! The 4 roll position.

Money Game. Blue on roll. Cube Action?


The answer is initial double/no redouble/take! The 5 roll position.
Money Game. Blue on roll. Cube Action?
4


The answer is no double/beaver! On the first roll there is only 5 marked losers and 10 rolls where you get doubled out. The beaver is marginal. If white moves 1 checker from the 24 to the 23 point he does not have a beaver.

Money Game. Blue on roll. Cube Action?


The answer is double/take! This is just a counting job. 19/36 rolls gets off. This is a last roll position (white has nothing to gain by recubing) which means that if blue has more than $50 \%$ he has a double.

Money Game. Blue on roll. Cube Action?
12


The answer is double/take!
Money Game. Blue on roll. Cube Action?


The answer is double/take!
The next one might come as a surprise:
Money Game. Blue on roll. Cube Action?


The answer is double/take! Counting is not everything. In normal positions the rule of thumb is that trailing with $10 \%$ is a borderline cube decission.

Money Game. Blue on roll. Cube Action?
10


The answer is double/no redouble/take! Crossovers are not everything. This is close to a last roll position.

## Greedy Bear-off (where to play off checkers and where to shift):



The answer is $4 / 2,3 /$ o no matter where the cube is. The interesting thing is that the play is not greedy and that it is a big mistake (a blunder) to play the greedy alternative. This type of position is the only example where the greedy alternative is a significant mistake. A common rule is Bear-off greedy (maximize cross overs)!

Money Game. Blue to play 3-6
9


The answer is $3 / 0,6 / \mathrm{o}$ no matter where the cube is. The blunder alternative $6 / 3,4 / \mathrm{o}$ is the worst legal play in this position. Bear-off greedy!

Money Game. Blue to play 1-1
3


The answer is $1 / o(2), 3 / 2(2)$. The greedy alternative $1 / o(2), 2 / o$ is clearly a tactical mistake. Blue has at best 1 roll left and has to maximize his chance of winning with that roll. 2-2 will win with the correct play and not with the greedy. This special tactical consideration is limmited to last roll positions like this. An even number of checkers will always result in greedy bear-off unless this type of consideration arise.

## Fill holes and unstack heavy points

Money Game. Blue to play 2-6
40


The answer is $3 / 1,6 / \mathrm{o}$ no matter where the cube is. After you have beared off greedy fill empty holes. To unstack a heavy point only comes in as a third priority. The last rules have many counter examples. See Artificial holes.

Money Game. Blue to play 1-2
5


The answer is $3 / \mathrm{o}$ if it is a game with a cube (roller's, centered or opponent's). If the cube is the roller's or centered the roller just missed a double/take. In double match point (no cube) $2 / 1,2 /$ o is equaly good! I have never seen a non trivial bear-off position where the cubes position makes a difference on the checker play.

Money Game. Blue to play 3-6


The answer is $5 / 2,4 / \mathrm{o}$ no matter where the cube is. This is one of the few examples of a situation where greedy beeroff is a mistake. As you can see the position is extreme, since the greedy Bear-off will create a position with two holes, and do nothing for the heavy point! On the other hand the correct play results in a position with an even number of checkers, no real holes, and an unstacked heavy point. It is not easy to come up with a position where the greedy alternative is wrong and if you do end in such a position the greedy alternative is almost never a big mistake (see Greedy Bear-off).

## Artificial holes

An artificial hole is a hole on the 3,2 or 1 point where the 6,4 or 2 point respectively is stacked.

Money Game. Blue to play 1-1


The answer is $1 / 0,2 / 0,6 / 5$. Gready of course but why slot the 5 point and not the 3 point? The answer is that the 3 point is an artificial hole and the 5 point is a real hole. If you roll a 3 next time you properbly will not have to waist any pips whereas if you roll a 5 and do not slot the point now you will have to move a checker to the 1 point. Chekers on the low points will sometimes later be beared off with 5 or 6 'es. This means that you waist pips by stakking up the low points which is the result of not slotting real holes. This knowlege is important since it is the reason behind a lott of plays. Actually it is importent in all the above plays. One play
where it clearly playes an important role is the first cube handling under The next one might come as a surprise.

Look again at how 6-2 is played in this position:
Money Game. Blue to play 2-6
40


As we saw $3 / 16 /$ o was the answer. Why not play $4 / 2$ instead of $3 / 1$. The hole on the 2 point is more artificial than on the 1 point.

## Avoid the gammon

Surprisingly many mistakes are made when people are trying to avoid getting gammoned and the basic gameplan is quite simple.

To understand the gameplan in these types of positions you have to realize that you have a fixed (presently unknown) number of pips you can move at your disposal. To avoid getting gammoned you need to bring one checker off with thouse pips. To bring one checker off you need to have all your checkers in your homeland. So the idear is basicaly (with few exeptions) to waist the minimal number of pips bringing all your checkers in to your homeland.

To do that you need to focus on cross-overs. You make a cross-over when you bring a checker past or from the 7, 13 or even 19 point. Bearing a checker off or bringing a checker in from the bar is sometimes called a cross-over, too.

The most important real cross-over you can make is bringing a checker to the 6-point. You waist no pips in acheaving your objective with a checker that is brought to your 6-point. If you can not bring a checker to your 6-point try maximizing your chance of bringing one there with your next roll. This is done by making the second type of crossover I mentioned (move past the 13-point) normaly without stacking points. If this is not possible try to make some other cross-over. Sometimes it is even correct to waist a pip or two doing this. You normaly do not want to copy your rolls unless the gammon risk is very high and you need doublerolls.

Finaly you need to take a good look at positions with only one or two rolls left. At this point in a game you should be able to look at all posible rolls and minimize your gammon risk.

So the idear is to maximize cross-overs with the objective to bring checkers to the 6-point and look for tactics at the end.

## Do not trust computer programs!

Money Game. Blue on roll. Cube Action?


The answer is no double (TOO GOOD TO REDOUBLE!)/drop. If you manage to reach a position where your opponent have one checker on the bar against a closed board and have a crunched up board it is marginaly too good. Therefore this position is too good since there is no exchange of rolls where white escapes and therefore no marked gainer.

Never commit your self to play a computers side in a money game. If you can play with the strategy to provoke a position where you have a forward rolling outside prime, set up this position. If you can establish this and if you double, e.g. Snowie 3.1 will beaver! This will mean that if you can provoke a position like this the cube will easily reach 512. You can loose many doubled gammons for that price. Some computer bots (e.g. Snowie 3.1) do not understand the value of an outside prime!

## I WAS SO UNLUCKY... by Michael Crane

"Come, civil night,
Thou sober-suited matron all in black,

And learn me how to lose a winning match."

So said Juliet as she falls in love with Romeo. Many think this a reference to how strong her love for him was but in reality she was referring to backgammon and losing a winning match in particular! In my experience no-one needs to learn how to lose a winning match, it's already in their bloodstream; what they need is to unlearn it. How many times have you been hit by that lucky roll and been put onto the bar? Several, I'm sure; but wait, is it lucky or is there something you don't know? Are you missing out on something that your opponent knows but you don't? In all probability you are missing something, its called knowledge. In backgammon it's not a mixture of skill and luck, it's skill and knowledge. Having that knowledge can give you the edge! Often, as I trawl through the playing rooms at tournaments I see players squander winning matches from sheer ignorance - but, when they come up to me later to record the result of the match they bemoan how unlucky the were to have lost it after only one unlucky roll! Well, here's how to avoid those unlucky rolls. In order to gain most benefit from the following, set your browser window to stop at the dividing line before proceeding further. Do as asked and then continue. No cheating! Take for example at the start of the match, (Figure 1).


Figure 1
You are black and it's your first move. White has already played 4-1, moving 13/9 24/23. Now, how many throws out of the 36 combinations will make your 5-point on this roll? Work them out and write down each one and then continue...

The answer is five rolls will make your 5-point. They are 3-1, 1-3, 3-3, 1-1, and 4-4. Easy, eh? Now, without working out each of the individual throws, how else could you arrive at five? There is a very quick and easy shortcut. Think about it and then move on.

Did you find the shortcut? It is easy; just multiply the number of points you occupy within the range of one die ( 6 points) from your target point (in this case the 5-point), by itself. IE: ( $8-$ point) $1+(6$-point) $1=2.2 \times 2=4$. You therefore have four basic throws that will cover the $5-$ point. These four basic rolls contain doubles that cover the target point, so, if you only had a single man on any of the available points; deduct 1 roll for each single man. You then add on any rolls that add up to the number required but do not hit the target point directly. In this case the 5 -point is 8 pips away from the 13 -point therefore $4-4$ is added to the basics. So, now can you work out, quickly, how many rolls will make your 4-point? Before you read on, work it out and then continue.

The answer is five. Why? Because this time the extra throw that covers the 4 -point is $1-1$. Remember, after you've worked out your basic hitting numbers, deduct the singles, then count all throws that add up to the required point but do not hit the target point directly. In this case, 1-1 adds up to 2 and it is your extra throw.

Staying with Figure 1. Calculate the number of rolls that make white's 5-point, and then calculate how many will make his 4-point, and finally, his bar-point. When you've worked them out, continue.

So, did you get them all right? Nine rolls will make white's 5-point (9-, 8-\& 6-points) $=3,3 \times 3$ $=9$. Deduct from this 1 for the single man on the 9 -point and then add 1 for $4-4$ from the $13-$ point. In the case of the 4-point, the answer is also nine. The basic $9(3 \times 3)$ less 1 for the single man on the 9 -point because there isn't a double that can cover the target point from this position, plus 1 for $1-1$ played from the 6 -point. The most rolls made the bar-point; ten in total: the basic $9(3 \times 3)$ less 1 for the single man on the 9-point, plus 3-3 and 2-2.

Now, look at figure 2. How many rolls will cover the 5-point?


Figure 2

The answer is ten. Three (6-, 7-\& 8-points) $\times 3=9$ plus $4-4=10$. Did you get it right? Don't forget, always multiply the number of men available by itself, deduct all single men, and add the extras.

Look at Figure 3. Imagine white opened with 6-1 making the bar-point, your reply was 4-4 and you made white's 5-point, and your own 9-point. White then responded with a 3-1 and attempts to make your 5-point or escape on his next throw. How many rolls will point on him and place him on the bar?


Figure 3

Did you get it right? It's the same problem as figure 2, except this time the extra isn't 4-4 (because it's already one of the basics) but 2-2. Now, if you're getting the hang of it that should have been self evident. Add, multiply, deduct, and add.

Now consider the position in Figure 4. You, black began with 2-1 (13/10), White replied 6-1 and made his bar-point, you rolled $4-4$ and made the 20 - and 9 -points then white rolled 3-1, and, being unable to make his own 5-point decided to slot yours instead. How many rolls does black have now to point on him?


Figure 4

If you've come up with 17 you've done it. If you haven't, look again. Did you spot the crafty 5 5 played $20 / 1515 / 1010 / 5(2)$ ? If not then you haven't fully grasped the concept of the shortcut. Keep trying. This wasn't a lucky roll, $47 \%$ of rolls would have covered that blot. It was knowledge. That knowledge and that one extra builder on the 10-point, gave you an increase of $70 \%$ over the position in Fig: 3. A nice edge! Now, how many times have you been bearing into your inner table against opposition - either on the bar or holding a point, and thrown that unlucky number and been forced to leave a blot? Quite a few? Well, perhaps we can do something about that as well!

Look at Figure 5.

Black to play 6-1.


Figure 5: Black to play 6-1
Double match point

Well, this is a lucky roll, you've rolled a much needed six, and so off you go; play it.

Hands up all those that played the runner $22 / 16,16 / 15$. This was a mistake as it left three rolls that would expose you to a double-hit. The bad rolls were, 6-6, 5-5, 4-4 (8.3\%), each leaving White $20(55.5 \%)$ return shots. Had you known about the Double-Six rule you'd have played $22 / 16,6 / 5$ leaving only $5-5(2.8 \%)$ as the joker. The $6-6$ rule is that generally if double six can be played safe you are unlikely to come unstuck with any throws at all, or leave the absolute minimum returns if not $100 \%$ safe. As a guide, if you can move 6-6 you can move anything, most of the time! So, it's always a good idea to see just how well $6-6$ would play. If you want to be even surer, include 6-5 in your predictions! As a rule: if you only have on more blot to bear-in, keep a safety spare on your 5-point!

Of course, lucky throws can sometimes be un-lucky as well. Take for example the times you've been ahead in a no-contact race as in Figure 6 and then your opponent has thrown a couple of great doubles and won the point and often the match.


Figure 6: Black on roll
It's happened to you has it? Well why? Didn't it occur to you to double them out? You let them do it. In a no-contact race when there really isn't a gammon chance for you and you're well ahead in the race, double straight away. Don't you end up calling your opponent 'lucky' just because you failed to use basic backgammon knowledge and then come to me and moan about it!

Placing your men into advantageous positions is knowledge, not luck. Of course, these examples are contrived, but, throughout the game, always look for that edge over your opponent. Let him think you're a lucky player. The longer he bemoans your luck the more games he'll lose thinking it.

U2 have got the Edge! So can you. Get it?

## END OF BEGINNER SECTION

## INTERMEDIATE SECTION

## Repetition of pip counting skills: you will need it definitely from this level onwards!

This article was previously published in the Chicago Point (visit their web site!), Issue \#52, November 1992. It was made available on the Internet in 1997 by Kate McCollough mailto:mccool@northcoast.comwith the author's permission.


Jack Kissane, backgammon master from Albany, New York, is known in many chouette circles as the fastest pip counter in the world. In a June 1989 Chicago Point interview, Kissane claimed that he can count almost any backgammon position within five seconds.

For the first time anywhere, Jack Kissane shares his counting techniques with the backgammon community. Enjoy!

Pip counting. How do you view it? An annoyance? A necessity? Just part of the game? Some backgammon players can't or won't be bothered doing a pip count. Others use the count as a crutch, basing far too many checker moves on it. After a hard day of match play or during an all-night chouette, pip counting can be sheer torture, draining our limited supply of "thinking" energy. However, once or twice a game, knowing the count is critical for making the right checker play or, more importantly, the correct cube decision.

Over the years, I have developed a system of pip counting that significantly reduces the amount of time needed to count a position. I call it Cluster Counting. Hopefully, this fairly simple system will help you minimize the drudgery of pip counting and thus increase your enjoyment of the game.

Basically, Cluster Counting involves the mental shifting of checkers to form patterns of Reference Positions (RP) whose pip totals end in zero (with two notable exceptions) for quick, easy and accurate addition. Here are my seven basic reference Positions:

## REFERENCE POSITIONS

## Reference Position \#1: 5-Prime.

5-Primes. Multiply the midpoint of any 5-Prime by 10 and you have just counted a cluster of ten checkers. This position shows a 5-Prime from the 4-point to the 8-point.


## Black=60.

The 6-point is the midpoint and the count for these ten checkers $=60$ pips $(6 \times 10$. $)$ This is so because 5 s and 7 s average out to 6 s , and 4 s and 8 s also average out to 6 s .

Reference Position \#2: Closed Board.


## Black $=42$.

This is just a 5-Prime around the 4-point plus two checkers on the ace point.

## Reference Position \#3:



## Black=70

Five checkers each on the 6- and 8-points.

## Reference Position \#4:



Black $=30$
Two checkers each on the 7-and 8-points.

## Reference Position \#5:



## Black $=40$

Five checkers on the 8-point.

Reference Position \#6:


## Black=62

Two checkers each on the midpoint and opponent's bar point.

## Reference Position \#7:



Black $=40$

Two checkers on the midpoint and one on the 14 point.

These seven Reference Positions combined with Key Points and Mirrors are the backbone of Cluster Counting.

## KEY POINTS

The two Key Points most often used are the 5-point and the 20-point (opponent's 5-point.) The 10-, 13- and 15-points are also quite valuable.

Position 8: Making use of the 5-point as a KEY POINT.


Black $=40$ White $=40$
This position shows two examples of counting a cluster of eight checkers all at once as if they were eight $5 \mathrm{~s}=40$.

Position 9: Making use of the 20-point (opponent's 5-point) as a KEY POINT.

The 20-point (opponent's 5-point) is the most useful Key Point. All checkers in your opponent's home board should be counted as 20 plus the pips required to get to the 20-point.


Black $=108$ White $=89$
Black's count is 108 which can be visualized as five $20 \mathrm{~s}+4$ (two each from the 22-point to the 20point) +4 (one from 24 -point to 20 point).

White's count is 89 , visualized as four $20 \mathrm{~s}+4+5$ (for the checker on the bar).

## MIRRORS

Mirrors are another important counting tool. Any point on the board plus its mirroropposite point equals 25 . For example, the 5 -point +20 -point, the 1-point +24 -point, and the 12 -point +13 -point all total 25 pips. It follows that any cluster of 4 checkers in mirror positions total 50. See Positions 10 and 11:Position 10: Using MIRRORS to count a cluster of four checkers.


Black $=50$.
White $=50$.
White $=50$.

$$
\begin{aligned}
& (13+12=25) \times \\
& 2=50 . \\
& (20+5=25) \times 2 \\
& =50 .
\end{aligned}
$$

Position 11: Using MIRRORS to count a cluster of four checkers.


Black $=50$. White $=50$.
$(18+7=25) \times 2=50$.
$(23+2=25)+$
$(24+1=25)=50$

OK! It would be nice if every time you needed a pip count, the board would consist of clusters as previously described. Unfortunately, that doesn't happen. Fortunately, these easy-to-count clusters are relatively simple to form by mentally moving the checkers where you want them.

## MENTAL SHIFTING--ONE WAY

One Way Mental Shifting involves moving the checkers forward to Key Points or Reference Positions and then adding the forward movement to the value of the Key Points or Reference Positions.

Position 12: ONE WAY MENTAL SHIFTING.


$$
\text { Black = } 137 \text { White }=121
$$

Black's pip count of 137 can be easily counted in three clusters: 40 (eight 5s) +33 (RP\#4 +3 pips) +64 (three 20s + 4.)

Divide White's checkers into three clusters to yield a total pip count of 121. 44 (5-Prime + 4 pips forward, 2 each from the 7point to the 5-point) +33 (three 10s +3 pips from 13 to 10) +44 (two 20s +4 .)

Note that two of White's checkers were shifted to White's 5 -point which is occupied by Black's checkers. When shifting one player's checkers, the other player's checker position can be ignored.

## MENTAL SHIFTING--TWO WAY

Two Way Mental Shifting differs from One Way Mental Shifting in that checkers are shifted either forward or backward to Key Points or Reference Positions and then compensating shifts are made in the opposite direction on the same side of the board or in the same direction on the opposite side of the board. Examine Position 13:

Position 13: TWO WAY MENTAL SHIFTING.


Black $=135$. White $=142$.

Black's spare checkers on the 6 - and 8- points are on the same side of the board. By shifting them one pip in opposite directions to the 7point, a 5-Prime is formed. Black's position can easily be counted in two clusters: 70 (5Prime $)+65($ five 13s $)=135$.

White's spare checkers on the 8 - and 13points are on opposite sides of the board. By shifting them in the same direction, in this case left to right, a 5-Prime is formed ( $R P \# 1$ ) and RP \#7 is also formed. White's position can then be counted in three clusters: $60+40$ $+42(t w o 20 s+2)=142$.

It should be noted that there are often several Cluster Counting choices available. For instance, in Position 13, instead of forming a 5-Prime, you could have shifted the two 9-point checkers to the 8 -point and compensated by shifting the two 5-point checkers to the 6 -point to form RP\#3. This cluster is also 70 pips.

## YOUR TURN

Let's try counting some positions. Original positions and adjusted positions (after shifting) are shown but not described. Can you spot the shifts? If not, set them up on your backgammon board and they will become clear.

## Position 14.

Black = ? White = ?


## Position 14a.

## By Using Two Way Mental Shifting the

 position becomes:

Black's 100 pips can be counted in three clusters: 40 (5-Prime from the 6-point to the 2-point) +50 (Mirrors on the 7 -point and the 18-point) +10 . White's 84 pips can be counted in two clusters: 44 (5-Prime +4 ) +40 (four 10s).

$$
\text { Black }=100 \text { White }=84
$$

## Position 15.

Black = ?


Position 15a.
After shifting, Black's position becomes:


Black's position can be counted in three clusters: $30($ six $5 s)+43(R P \# 5-$ five $8 s+3)+84$ (four 20s + 4).


White's pips can be counted in three clusters: $42($ eight $5 s+2)+40(R P \# 7)+67$ (three 20s +7).

White $=149$


Black's pips can be counted in two clusters: 66 (twelve 5 s +6 ) +40 (two 20s).
White's 100 pips can be counted in two clusters: 30 (six 5s) +70 (RP\#4 again +10 for two checkers moved from the 13 -point to the 8 -point).

Note that in Position 16a White has only 14 checkers. The two checkers originally on the 3 -point were shifted in different directions - one checker to the 6-point and the other checker off the board.

$$
\text { Black = } 106 \text { White }=100
$$

As previously noted, with Cluster Counting, there is almost always more than one correct way to count a position. You should use whichever cluster formations you can quickly visualize. For example:

## Position 17.

Black = ?


With a minimum of shifting, Black's pip count can be quickly counted in several different ways:
a. $63(5$-Prime +3$)+75($ five $13 s+10$ by shifting two checkers from the 18point to the 13-point);
b. $63(5$-Prime +3$)+62(R P \# 6)+13$ (spare checker on the 13-point);
c. 50 (Mirrors on the 12- and 13points) +50 (Mirrors on the 7 - and 18-points) +30 (six 5s) +8 (Checker on the 8-point).

Black $=138$

Well, that's the system. Certainly my list of seven Reference Positions is by no means inclusive. You probably already know or will discover other positions that can be added to the list.

Will mastering the Cluster Counting technique improve your game, or at least make one tedious aspect of backgammon more enjoyable? Count on it.

Thanks to Jack and to Bill Davis of the Chicago Point. Thanks also to Kevin Bastian for creating the graphics for this page. And thanks to Kate McCollough for creating the HTML version of the article and putting it up on the Web.

## Your Flexible Friends by Alan Webb

And flexible friends are indeed how you should regard your checkers. They should be regarded as assets not liabilities which need to be hauled over obstacles and off the board. The sooner one realises this fact, the more dynamic your game will become and the more games you will win. Early in a game you should maintain as much flexibility / potential point making numbers as possible. You must fight for a strategic advantage early in the game or you will end up an underdog real quick. The following position is the result of an opening 3-2 by a player who has not quite grasped the concepts of flexible dynamic play yet....

Blue has just played an opening 3-2?

pos. 1
Yuck! All very safe and sometimes Blue will in fact win by playing super safe as in the above play... but winning matches playing super safe is a rarity. All advanced players understand that super safe play just doesn't work but a dynamic flexible approach early in a game can and certainly does. Now compare the above resulting position to the 2 other candidates of an opening 3-2 below...


Position 2 has brought down a checker from the 13 point and split the back men with the 3 . Blue will now make his own important 5 point or the bar point ( 7 point) with many more rolls (6-1, 6-3, 4-1, 3-3 doesn't break a point for the 5 point...) In addition to this Blue now
needs only a 4 to have his own high anchor. This opening move does good things on both sides of the board with little downside. If your opponent rolls a lucky 6-4 then so what?! That is 1 extra checker back to help you get your advanced anchor. It is early days and you should NOT be overly concerned about leaving indirect shots (7 or more pips away) during the early part of a game. In fact sometimes it is correct to leave direct shots (6 pips or below away) early on by slotting key points with a single checker!

Position 3 is the more aggressive of the 2 standard variations of an opening 3-2 and is in fact my personal favourite. Unless I get hit I am a strong favourite to make a key point next move. The downside to this roll is it really only makes progress on 1 side of the board and can result in a stripped midpoint relatively quickly. It is a toss up between the 2 really and is very much a stylistic thing as to which you prefer. Forget 13/8 though.

The tactical principals discussed in the opening 3-2 move above (key points early on) apply for most other openings as well. E.g. totals of $7(4-3,5-2)$ should not be played from the 13 point to the 6 point but should involve either bringing a man down from the midpoint and splitting the back men or bringing 2 checkers down from the midpoint. An opening 4-3 could be for example 24/21 13/9. 5-2 opening rolls can also involve splitting the back men but you can also play both checkers from the midpoint if you are feeling particularly aggressive. The point is.. DO NOT go for super safe plays early on in a game. Small risks can reap large rewards at this stage.

Pip count: Blue 146/White 140.

## Blue to play 4-3?


pos. 4
Running from the 21 point with the whole roll is certainly not correct as you will know if you read December's article. Some players are tempted with 13/6. 13/913/10 is however the best play here. Your goal should be containing white's rear checker. The 7 point goes a long way to accomplishing that goal. You can not make the 7 point with this roll but can do the next best thing... prepare to make it! Playing 13/9 13/10 gives you 2 extra builders to achieve that goal. You have a high anchor so getting hit is not fatal, also you will notice that White has a
single checker (a.k.a. blot) in his/her home board which give you a guaranteed return shot if hit as white needs a whole roll to hit your outfield blots on the 9 and 10 points. You can normally afford to take extra risks when your opponent has a blot in his/her home board or you have a high anchor. Playing 13/9 13/10 is not as risky as it looks and is the best play in order to make the valuable 7 (a.k.a. bar) point. Watch out for similar positions in your own game and play accordingly. They appear often in mine.

The need to remain flexible and create the best chances for you to make key points is not just confined to opening rolls / containment considerations. There are occasions in defence where flexibility plays a role too...

Pip count: Blue 180/White 161.

## Blue to play 3-1?


pos. 5
The majority of inexperienced and some intermediate players are likely to play 24/20 in this position. This is in fact not a bad move at all as it paves the way for a 4 to cover for a high anchor next roll. Slightly better however is $24 / 2124 / 23$ ! This move gives you that little bit more flexibility in order to make either the 21 or 20 point next roll. Use this kind of split cautiously however. White would normally go for the jugular with 3 blots in his home and attack. White is however in a weak attacking position here as he has only 1 checker at the scene to attack with and only a 1 point board. Bear this in mind when splitting your back men. In general, try to split when your opponent is stripped of builders.

## Pip count: Blue 77 / White 164.

Blue to play 4-1?

pos. 6
I thoroughly enjoy playing the above move against an inexperienced player as they truly believe I've lost my marbles and am in need of a doctor :-) Can you guess what the correct play for 4-1 is here...

## Blue has just played 4-1.


pos. 7
Well done if you guessed correct here! $13 / 98 / 7$ is slightly better than $13 / 93 / 2$. The reason is because with White having 2 checkers on the bar the only way White can hit you next roll would NORMALLY be with double 5s from here but you will notice you have no single checker on the 10 point so White has ZERO chance of hitting you next roll but you have every chance of closing him out due to your flexibility. Don't forget, even if you can't close White out next roll playing super flexibly has given you an extra pick and pass number (4's from the 9 point) With 2 checkers on the bar do NOT worry too much about outfield blots and play as
flexibly as you can. DO however consider joker rolls like 5-5 from similar positions to this one especially if White has a strong board. Here Whites home board is weak so even if you were to leave a single checker on the 10 point this kind of multi blot flexible play would still be correct.

Another example of where flexibility plays an important roll is bearing in to your home board. You will probably be aware of the general rule of breaking up your points from the rear. Here is an exception and it is all to do with planning ahead for future rolls...

Pip count: Blue 88/White 105.

## Blue to play 4-3?



Most players automatically play $9 / 69 / 5$ here. The slightly better move is however is $8 / 58 / 4$ ! The resulting distribution of checkers after playing $8 / 58 / 4$ makes the difference. More numbers to make the 2 point and more numbers to attack with should White feel cramped and mistakenly decide to run with a $6-x$. Also of importance is to have an even distribution of checkers when bearing off against opposition. Heavy points (like having 6 on the 6 point!) can cause awkwardness later on.

Well that just about wraps up this months section. As in all general concepts you can take them too far. Do not leave 6 blots strewn around the board because you are being Flexible :-). There is a time and a place for flexibility and when to take that extra risk of getting hit which will be discussed in further detail in April. You learn the most about flexibilty through experience though. You should however now understand why $13 / 8$ on an opening 3-2 is a heap big "no no".

## Time to make a point...by Alan Webb

It is all very well and good knowing how to keep flexibility in order to make the most of future rolls and thereby making valuable points, but it is also vital that you know WHICH points to make and when. This section discusses some of the pitfalls that confront inexperienced players once they have a sound knowledge of the previous section on flexibility. On many occasions such players will play by rote. Here is an example of what I mean by playing by rote...

## Pip count: Blue 162 / White 157.

Blue to play 6-5?

pos. 1
For quite some time I was playing 24/13 in this position. Why? Because I was so accustomed to play it as an opening $6-5$. Playing $24 / 13$ is in fact a huge mistake! You have the opportunity to make a valuable point here and should do so with $24 / 1823 / 18$. It seems obvious but you would be surprised how often this move is missed, even by intermediates. Beware of playing to rote. There is another example of playing to rote later on.

I want to draw your attention for the moment to the "Golden point". Paul Magriel, in his backgammon bible "Backgammon", wrote a whole chapter dedicated to the making and breaking of what he referred to as the golden point. That point is your 20 point and conversely your opponents most valuable point, his 5 point. Experts argue which of the 5 points is the more important and many decide on their own individual style of play. What is not disputed is the fact that either 5 point is extremely important to be held and it is to be fought tooth and nail for. Now I have said that you should have no problem guessing what to do with the next 3-1 :-)

Pip count: Blue 162 / White 160.
Blue to play 3-1?

pos. 2
The 5 point should be made of course. $8 / 56 / 5.10 / 78 / 7$ making the bar point actually comes in 3rd place. Second place goes to making the 21 point which is also a highly valuable point to make. Nevertheless inexperienced players regularly make the bar point here ( 7 point) as it is the safest, doesn't leave an indirect shot and blocks 6 s . When your opponent has just 1 checker back and is well ahead in the race there is a stronger argument for making the bar point but even in that case it is still correct more often than not to make your 5 point.

Pip count: Blue 161 / White 161.

## Blue to play 4-1?



Pos 3.
Here is another example highlighting the value of the 20 point, your opponents 5 point this time. Many players automatically play $11 / 78 / 7$ with this roll. It looks reasonable enough making the bar point. However, you have an ideal opportunity to make your opponents 5 point here. Imagine white rolling double 1 or double 4 next roll? You would deeply regret not making the point. In fact, a top player would hit on your 5 point whether he left a checker there for a return hit or not! A good player understands the value of his 5 point and will fight damn hard to get it. Many opening moves turn into a real blood bath as players hit and return hit in a battle for the 5 or 4 point. Especially, if they are not in a position to make it naturally such as in this position where White is somewhat inflexible. Some top players even slot the 5
point (leave just 1 checker there) on their very first move with the hope of covering next move. That is how important that point is. $24 / 2011 / 10$ makes that valuable point and maintains flexibility to make a valuable point in your home board next roll.

Compare these two positions...
Pip count: Blue 139 / White 124.
Blue to play 4-3?

pos. 4

Pip count: Blue 139/ White 146.
Blue to play 4-3?


For many, covering the 10 point is the first thing you should do and then look to play the 4 somewhere in both positions. After all how is White going to escape his/her rear checker if it is behind a full prime right? Actually in only 1 of these positions should the 10 point be covered. The clue to playing these positions correctly lies in a later section. Can you guess in which position you should make the 10 point on?

The section which has a bearing on these positions is the following "Run rabbit Run". You are behind in the race in position 4 so playing provocatively whilst also covering the 10 point pays dividends. The correct move for position 4 is 20/16 13/10. In position 5 however you are ahead in the race so your game plan should be to come home safely. Playing 20/13 comes out slightly better than covering the 10 point. As you are ahead in the race, White would be really keen on attacking your rear checker and hoping to either prime you or close you out. There are times when you have a chance to make a point but the overall strategic goals actually dictate running on or a completely different play. e.g. this can happen when ahead and you have the chance of making a point 6 pips away from your opponents rear most anchor. Making that point can easily become a liability as what you have effectively done is placed yourself into a position where your opponent now has a chance to win from a holding game. Don't make a point just because you can is what I'm trying to say. The vast majority of times it is correct to do so but be aware that occasionally, particularly when ahead in a race, it isn't. Position 5 should be played 20/13.

Here is another position commonly played to rote.
Pip count: Blue 161 / White 161.
Blue to play 6-1?

pos 6.
This $6-1$ roll is automatically played $13 / 78 / 7$ in many cases. $11 / 56 / 5$ is far better than making the bar point here. Again an opportunity to make the 5 point should not be passed.

Here is another of those "Which point?" positions..
Pip count: Blue 140/White 132.
Blue to play 4-1?


Pos 7.
Even though you could argue that making the bar point blocks escape numbers such as 5 s and 6 s , it is still correct to build up your board with $9 / 56 / 5$. You should be starting to see a pattern by now. Inner board points such as the 5 or 4 points take precedence over the making of outfield points, even the bar point, on MOST occasions.

Now I will touch briefly on the relinquishing of important points such as your 20 point. It is one of the hardest choices in backgammon to make and depends on many factors. Comparison of inner boards, timing, is your overall position deteriorating or improving, blots around the board, number of builders aimed at your point etc. etc. It is an area that really does take a lot of experience to be able to make the correct decision even most the time. It is
beyond the scope of these pages to go into any detail and I would recommend buying yourself a good book which covers these advanced decisions. Having said that there are some general pointers, some of these will be covered partly in "Run Rabbit Run", where we will discuss when to run the rear checkers and when not to. Even knowledge of this section could result in you still making serious errors in simply leaving your advanced anchor (your 20, 21 \& 18 points). Here however is an example where it does have a bearing... in part.

Pip count: Blue 108/White 121.
Blue to play 5-2?

pos. 8
The correct move here is indeed to run to the 13 point. You are ahead in the race is one factor but notice also that if you don't run now you will either relinquish your 13 point (mistake to leave this point when men are still back) or you will break your own board. You also have the better home board so White will be wary of leaving any return shots. Your position is deteriorating in other words if you don't run whilst white is in a position to improve his board. Now is the time to get out of "dodge city".

Pip count: Blue 119/ White 116.
Blue to play 5-2?

pos. 9
To illustrate how tough these kinds of positions can be, here is an almost identical position but this time you have "time" as you have a spare on the 13 point which can be played. In
position 9 it is correct to play $13 / 6$. After this roll you are ahead in the race, have the better board and yet you should still not run. Nobody said backgammon was easy :-) I personally have a general rule not to relinquish a high anchor unless NOT doing so will result in my position deteriorating to an unacceptable level such as being forced to break my board or give up the midpoint. Not the most scientific of approaches but it seems to work quite well. Far more experienced players than myself get these kind of positions wrong. they are commonly referred to as "Pay now or Pay later" positions and I'm sure are misplayed all the way up to expert level in varying degrees.

Beware of good players luring you off a point such as a high anchor to hit. I've watched a few games online where a player knowing his opponent is technically weaker will leave a blot on the 14,15 or 16 point in the actually HOPE that his/her opponent will give up the high anchor to hit. He will normally have a high anchor of his own, your board will not be that strong and he will have several builders ready to pounce on the checker(s) you left behind. I've seen many a gammon result from this cruel but perfectly legal tactic :-)

To summarise this:
Don't play to rote and look at least 3 other options before making a move.
Make your or your 20 or 21 point(s) ASAP!. Even if there seems to be a perfectly good alternative move, go for the 5 or 4 point. Fight hard for these points because you can be sure if your opponent is strong he will.

If given a choice between making an outfield point or an inner board point it is USUALLY correct to make the inner board point. Be wary however of playing too much checkers behind an opponent's high anchor as this adversely affects your flexibility as you attempt to get your rear men home.

Try to keep a valuable point such as a high anchor for as long as possible without it breaking up your game elsewhere. Do not be lured off a valuable point early in the game.

I hope that has given you some pointers as to which points to make and when.

## Run Rabbit Run! By Alan Webb

I have noticed that one of the most common mistakes by players of all levels but in particular those new to the game or just starting on the (very long :-) backgammon learning curve, is to run his/her back checkers when they are significantly behind in a race. By race I am referring to the pip count which basically means the amount of points you need ALL your checkers to move over in order to have them off the board. Most online servers provide a feature which automatically gives you the pip count. You ignore the pip count at your peril, as many moves are decided on how far behind or ahead you are in the overall goal to bear off first. Let me show you an example. Blue is always playing in a clockwise direction and is always on roll. The cube has been left out of these pages so it is essentially a 1 point match.

## Pip count: Blue 111 / White 86.

## Blue to play 6-5?


pos. 1
In pos.1, Blue is 25 pips down in the race and has essentially just 2 options. Either moving both checkers from the 16 point $(16 / 1016 / 11)$ or both checkers from the 13 point ( $13 / 713 / 8$ ). Time and time again I see players playing $16 / 1016 / 11$. It is probably an instinctive thing to "get out of dodge city" and move the rear men. The last thing you want to do is to break contact with your opponent. Your best game winning chances being so far behind in the race (even after the roll) is to force your opponent to leave a shot. Running your rear checkers makes it so much easier for white to clear the 12 point and cruise home with a significant race lead. It is safe but applies no pressure on white to perform. The correct move is to play $13 / 7$ $13 / 8$, leaving your rear checkers right where they are. You now have what is referred to as a holding game. A holding game is a type of position where you are holding your opponent on a point ideally 6,5 or 4 points away ( 6 is best) and make it difficult for your opponent to clear the point without leaving a shot. Not many rolls will allow White to get past your checkers on the 16 point, it normally boils down to a 6-5 roll or doubles in order for White not to leave a shot. You are in fact favourite to get a shot within the next few rolls, so your priority should be to build your board up and wait until White is forced off the point with a $6-\mathrm{X}$. You would be surprised how successful the holding game can be especially if you can keep hold of the 13 point without having to break up your board.

## Pip count: Blue 84/ White 86.

Blue to play 6-5?

pos.
Pos. 2 is a different kettle of fish all together, although a cursory glance makes it seem as if there is hardly any difference at all from that of position1. Here Blue is ahead by just 2 pips, however, after the roll he will have a reasonable lead. Although White could still roll well and get back into it, you should concern yourself with the fact that at this moment in time you are ahead and you need to make the best move available to you. The best move by quite some margin as I'm sure you have figured out for yourself is $16 / 1116 / 10$. Blue now wants to get into a racing game as this is where he/she has an advantage. In fact if Blue doesn't move his back men now then White will be the one who has the holding game with Blues checkers on the 16 point! Who is holding who in close races can be difficult to assess and might be covered should I ever decide to do an intermediates page. Try to play to your advantages, if you feel you are getting ahead in the race then Run Rabbit Run :-) On the other hand if you notice you are well behind the last thing you want to do is to get into a race. Stay back and hope for a shot.

How about this position...

## Pip count: Blue 147/ White 112.

Blue to play 6-5?

pos. 3
The temptation to run 1 checker to the 13 point (a.k.a. midpoint) is just too much for most inexperienced players. In fact this kind of error occurs the most often of all. The opportunity to safety a rear checker must be right mustn't it? No, it most certainly must not, especially when you are 35 pips down in the race. In fact advanced players sometimes wish they have another checker back so they can provoke some blot hitting action and maybe get a return shot or perhaps as an extra builder for their opponents 5 or bar point ( 20 or 18 point) to get into some form of holding game. Something you really, really should try to remember is that when you are so far behind in the race that winning that way is no longer feasible, instead of being a nail in the coffin, having an extra man sent back can be a deciding factor of you winning the game! I'm digressing... back to racing issues. If Blue rolled 4-4 or 6-6 or indeed has any dice combination which enables him/her to make the opponents 5 or bar point then he shouldn't hesitate to do it! If you are not careful you can take this behind in the race concept too far. A holding game as discussed earlier can be quite effective. I will be discussing game plans at a later date in more detail.

Moving on to this position...

## Pip count: Blue 161 / White 125.

## Blue to play 5-5?


pos. 4
This position is similar to pos. 3 but in my opinion misplayed more often. "YIPPEE" types my opponent whilst safe tying 2 checkers from the 23 point to the midpoint ( 13 point) with $23 / 13(2)$ in the belief that he/she is back into the game. I'm thinking "Yippee" myself after my opponent plays the above move :-) the 20 pips does not help that great a deal in the race at all. Many players bemoan the fact their opponent gets high doubles and comment on their luck, sometimes not realising that this "lucky" roll is in fact the last thing their opponent wants! But this roll isn't that bad at all. Remember my digression above? You have the opportunity with this roll to make the bar point (a.k.a. high anchor) Give yourself half a point if you kept all 3 rear checkers where they were and moved elsewhere. The correct move here is $23 / 18(2)$, $13 / 3(1)$. Preparing for a nice 5 prime and having a classic holding game. You see how that checker left on the 24 point is going to make life difficult for white as he/she is forced to play moves inside the inner board? A prime example of how it can be useful to have more than 2 checkers back. Think of your checkers as assets rather than liabilities and you will have a far better mentality to play the game well. By the way, according to Jellyfish analysis (a computer program that plays a world class game with analysing features) running to the mid point was the 11th place choice.

And now for a little test: see if you can figure out what to do with the rear checkers in the 2 positions below.


Position 5. It is not correct to run the back man to the 14 point, much better is a move such as 25/20, 13/7.

Position 6. Resist the temptation to safety the checker (a.k.a. blot as it is only a single checker) from the 24 point to the 20 point. Just about any other conceivable move is far better. The top move according to Jellyfish analysis was $7 / 4,7 / 6$, preparing to make the important 4 point. More on "point making" at a later date.

That just about covers the number one blunder made by virtually all inexperienced/casual players. I'll leave you with 2 mantras which you are to repeat every night before going to bed :-)

When behind in the race... back men mark pace! \& when in front in the race... back men make haste!

Corny, but it makes remembering the concept much easier.
"Mark pace" btw is a military term for marching on the spot, i.e. not moving forward for those who didn't know already. When I was a soldier...

## Bold vs. Safe play...by Alan Webb

The final section of my tips deals with the decisions of making a bold play or to play safely. There is a lot of risk management involved in backgammon. Take the flexibility section for example, where we saw how leaving a lone checker in the outfield, rather than a liability, can act as an important builder for a vital point such as your 5 or bar point. Flexibility is one issue but there are times when other factors take priority. Paul Magriel in his backgammon bible "Backgammon" laid down some fundamental guidelines regarding bold and safe play. These guidelines are for the most part used by the top players of today and form part of the basis for a high level of play.

I will now attempt to point out the main principles. First of all starting off with the circumstances in which you should consider safe rather than bold play. They are:

1. You are ahead in the race / pip count.
2. You have the weaker home board.
3. Your opponent has 4 or more points made in his home board.
4. You have fewer men back.
5. You do not hold an anchor in your opponent's board.
6. Your opponent has no blots in his inner board.
7. Your opponent has more than 1 checker back.

So conversely a bold play is called for when...

1. You are behind in the race / pip count.
2. You have the stronger home board.
3. Your opponent has a weak home board.
4. You have more men back or over 2 men back.
5. You hold an anchor in your opponent's board.
6. Your opponent has blots in his inner board.
7. Your opponent has only 1 checker back.

If you can drill the above into your head you have an excellent guideline as to when and when not to take extra risks.

Let's move on with this position...
Pip count: Blue 79/ White 76.


What we have here is an opportunity to hit White and leave a checker open to a return hit, or we can play safe with something like $6 / 3,6 / 4$. Let's check the above criteria. You are slightly behind in the race but you can count on pip wastage as you come in, this indicates a bold play. You have the weaker board so that calls for a safe play. Your opponent has a full house so that calls for a safe play. White has fewer pips to go before bear off so this calls for a bold play. You hold no anchor and your opponent has no blots in his board, they both call for a safe play. Your opponent only has 1 checker back which calls for a bold play. So guess what you should do here?

Hit! And it isn't even close. This position is something like a "pay me now, or pay me later position." If you don't hit you end up crunching your board and waste more pips. Not only that but you have to clear your 10 and 13 points sometime and that could be very awkward. There is a remote chance of getting a gammon if you successfully close out as well. If you guessed wrong on this you are not the only one. Most intermediates even mess up on this one. Ok, that was a bit naughty of me making the first position an exception :-) There are not that many of them but this is one of them where most criteria point to a safe play but do not override the fact that a bold play is in fact called for. $10 / 5$ is correct by a wide margin.

## Pip count: Blue 72/ White 75.



A very similar position here but the criteria now should be adhered to. You are genuinely ahead in the race here and can avoid wasting pips (wastage btw means playing inside your board when you have outfield checkers still to move in). You also clear the potentially hazardous 13 point. 13/10, 4/2 should be reasonably clear here.

A different scenario this time...
Pip count: Blue 168 / White 143.


Behind in the race, more men back, opponent has just 1 checker back. All those criteria point to a bold play even though White has the stronger board. $7 / 4^{*} 24 / 23$ is the correct play here. When your opponent threatens to jump his last man clear, as in this position, bold measures are called for. Very much the same as the first position, your opponent threatens to do something that would create an almost insurmountable advantage. Most of the criteria point to a bold play and hitting must therefore be correct.

What about this position?
Pip count: Blue 141 / White 148.


You are ahead in the race so you don't want a checker sent back, you only have 1 checker back, and you have the weaker board. The majority of the criteria point towards a safe play and this is correct. 7/3 without hitting is correct here.

Moving on to this commonly misplayed position...
Pip count: Blue 116/White 127.


So often a top player will leave a blot like this if playing a weaker player. They will dangle a blot hoping their opponent will take the bait. You have a blot in your board, you are ahead in the race, your rear checkers are more advanced, and your opponent has the stronger board. A definite safe play called for. The temptation to hit and safety to the 13 point is too much for many players but it is incorrect to hit here although not by a great deal. Look out for this as it is a trap commonly played by strong players.

Pip count: Blue 119/White 118.


A very similar position here but you are slightly behind in the race, you have no blot in your board and Whites position is stripped (meaning a lack of spares to play) so hitting might cause another checker to be knocked loose and be ripe for the taking (consider White entering with 4-2 for example) or white will have to bust his board. You should hit here, you gain a lot in the race and to hit you back will give you plenty of return shots. 18/16 16/13 is correct by some margin.

Now for a little test... Note: Notice how some checkers are already borne off by white in the following 2 positions.

Pip count: Blue 83/ White 53.

pos 1

Pip count: Blue 83/ White 68.

pos 2

You can leave a blot to cover next roll 9/6*, 13/12 or you can "pick and pass" playing 9/6*, $6 / 5$. Which strategy belongs to which position? or is the same move applicable to both positions?

This is quite a tough one and the answer is based more on the amount of checkers White has off rather than bold vs. safe criteria really. Although you have the better board in both positions you are way behind in position 1 but a double or two in position 2 can bring you
back into the game even assuming that white does come out first time. In position 1 you should hit and bring down a builder from the midpoint. Position 2 such a risk is not necessary only 3 checkers off, not that far behind in the race and White is not favourite to come out next turn in any case. So hit in position 1 and leave a blot. "pick and pass" in position 2.

Another little test...

Pip count: Blue 159/White 152.

pos 3

Pip count: Blue 141 / White 147.

pos 4
..Position 3 is not for the faint hearted :-) The correct move is $8 / 5^{*}, 6 / 4^{*}$ ! You have an anchor, White is threatening to run 1 rear checker or make your "Golden point" (your 20 point!) with any 1. You are behind in the race and you have the better board. This position screams out for a bold play and they don't get much bolder than $8 / 5^{*}, 6 / 4^{*}$. In position 4 on the other hand, you are ahead in the race and your opponent has the stronger board. You will strip you position by hitting twice and you are in danger of having 2 checkers primed unless you start moving them rear checkers now. Hitting twice is overkill. Hitting once is quite sound though. You gain a tempo meaning you buy a bit of time and prevent White making his bar point or safe tying both rear checkers. Playing 13/8 is simply too passive and strips the midpoint, any other non- hitting play places you in a stripped inflexible position. Position 4 correct play is $8 / 5^{*}, 24 / 22$ - doing good things on both sides of the board.

Well that's it for my tips. You really should reread each section over and over again. The majority of matches lost by inexperienced players are not because they have been "unlucky", but because they do not have a sound grasping of the principles in these pages. The good news is that your game/rating will improve if you study these pages. The bad news is that I have only really scratched the surface of this fascinating game. I hope these pages have been of help. If so let me know with an e-mail or sign my guestbook. It is nice to know my efforts are appreciated. I will say however that your best bet to improve your game is to buy a book from the experts such as Paul Magriel, Bill Robertie or Kit Woolsey to start off with and play!

## Miscalculation and correct use of match equities by Stefan Gueth, Germany

Suppose the trailer is T-away, and that the difference between the two scores is D.
Method A: The Turner formula is

$$
50+(24 / T+3) \times D
$$

For example we take a matchscore of $12: 7$, match to 15 points. The leader is therefore 3-away, the trailer " T " 8-away. The difference " D " between the trailer " T " and the leader is 5 points. We divide 24 by $\mathrm{T}(=8)$ to get 3 , add 3 to get 6 , multiply by $\mathrm{D}(=5)$ to get 30 and add 50 to get $80 \%$ MWC (Match Winning Chance). This means that the leader has an $80 \%$ chance at the score of $12: 7$ to win the 15 point match. To calculacte the trailers chances we subtract the MWC of the leader from $100 \%$, therfore the trailer has $100 \%-80 \%=20 \%$ MWC.

Here some numbers to remember with approximations:
$24 / 5=4.8[] 24 / 7=3.5[] 24 / 9=2.7[] 24 / 11=2.2$
$24 / 13=1.8[] 24 / 14=1.7[] 24 / 15=1.6$
Method B: Neil's Numbers, which relies on learning the following short table of numbers instead of calculating a multiplier. The table is

```
    T
multiplier }\begin{array}{llllllll}{10}&{9}&{8}&{7}&{6}&{5}&{4}
```

First the multiplier ist looked up with the help of this table corresponding to the points the trailer " T " is from the matchscore away, regarding to our last example 3- away, 8 -away we look up what is in the row " T " in the table under 8 : it is the multiplier 6 . The difference between leader and trailer in 3-away, 8 -away is 5 points, so we ultiply these values again: ( 5 x 6$)+50=80 \%$ MWC.

One must interpolate where no number is given.At 3-away, 7 -away for example, the multiplier is half way between 6 and 7 , so we take 6.5 and get the equity $(4 \times 6.5)+50=76 \%$ MWC.

For accurracy now the Method C by Nigel Merrigan :

The formula is
$50+\quad \begin{aligned} & 92--------\quad \times D\end{aligned}$
$6+T$
and for Crawfordgames:

$$
50+\quad \begin{aligned}
& 84--------1 \times D \\
& 7+T
\end{aligned}
$$

To underline accurracy, here some examples to illustrate extreme differences:
Suppose a match to 15. Score White - Black(me): 13-11. I have two pieces left on my one point. My opponent has two pieces left on his three point. He doubles to 2 . What should I do? The amount I lose by taking and losing will be called my risk. Then my takepoint is Risk / Risk + Gain = TAKEPOINT. If I drop, the score would be 14-11, and my equity, so we have to calculate 1 -away, 3 -away. THIS situation has to be calculated with the Crawford Formula (because 14:11 is CRAWFORD!), preferably Nigel Merrigan's! $50+[((84-3) /(7+4)) \times 3]=$ 72.09 , therefore the RISK is $100-72.09=27.91$ (and NOT $17 \%!!$ ) If I take and win the score would 13-13, so my equity would be $50 \%$; if I take and lose, I would lose the match, and my equity would be zero. So I am risking $27.91 \%$ to gain: $50 \%-27.91 \%=22.09 \%$ as my gain; my take- point is therefore $27.91 / 27.91+22.09=55.82 \%$. A look at the dice table reveals 17 good rolls for my opponent to take off both checkers and win the game, if the cube would be taken by me before then with 2 points at the score 13-11 also the match. His chances to bear off in one rolls caclculates: 17 good rolls divided by 36 possible dice rolls equals 0.4722 times 100 (to get percentages) equals $47.22 \%$. From my point of view his LOOSING percentage (which is my winning percentage) is $52.77 \%$, which is LESS than my takepoint of $55.82 \%$. In a moneygame it is a take but this is a match! Therefore I have to PASS, PASS, PASS!!!

