Bridge Scoring – A Tutorial

In this tutorial, I will explain how scoring in bridge works and how it affects both the bidding and play. I will cover the following topics:

- Basic Scoring
- IMP Scoring
- Match Point Scoring
- Tactical Considerations Based On Scoring

Basic Scoring

Although I am sure you know this, let me just state the obvious basic scoring principle:

- In order for declarer to get a positive score, he must take at least as many tricks as he contracted for. So, for example, if the contract is 2♥, declarer must take at least 8 tricks in order to get a positive score.
- Similarly, in order for the defenders to get a positive score, they must prevent declarer from taking the number of tricks he contracted for. So if the contract is 3NT, they must hold declarer to 8 or fewer tricks in order to get a positive score.

In this tutorial, I will be discussing duplicate bridge scoring. There is another form of scoring called rubber bridge scoring, which used to be very popular in social bridge games. These days, even most social bridge players use what is known as "Chicago" scoring, which is identical to duplicate bridge scoring.

Scoring When You Make Your Contract

Trick score for each trick taken over 6:

- ♣ and ♦ contracts – 20 points per trick
- ♥ and ♠ contracts – 30 points per trick
- NT contracts – 40 points for 1st trick; 30 points per trick thereafter.

Let me clarify some terms:

- *Part Score* – a part score is a contract where, if you make your contract exactly, the trick score is less than 100. So all contracts of 4♦ or below (with the exception of 3NT) are part score contracts. Even if you make overtricks such that your trick score is over 100 (for example, you are in 2♠ but score 10 tricks so that your trick score is 120), the contract is still considered a part score.
- *Game* – any contract where, if you make your contract exactly, your trick score is 100 or more. Since different suits have different trick scores, the number of tricks you need to contract for in order to be in game varies by suit. In particular, the minimum game

contracts are 3NT (trick score = 100), 4♥ (trick score = 120), 4♠ (trick score = 120), 5♣ (trick score = 100), and 5♦ (trick score = 100).

- *Small Slam* – a 6-level contract, regardless of suit.
- *Grand Slam* – a 7-level contract, regardless of suit.

Here are the bonuses for bidding and making the various types of contracts:

- Part score bonus – 50. You only get the bonus if you are in a part score contract. If you bid game or slam, you do not get the bonus.
- Game bonus – 300 non-vulnerable, 500 vulnerable. You get this bonus for all game level contracts, including slams.
- Small slam bonus – 500 non-vulnerable, 750 vulnerable. You get this bonus for 6-level contracts only (not 7-level contracts).
- Grand slam bonus – 1000 non-vulnerable, 1500 vulnerable.

Here are some example scores:

- 3♥ making 4 – 170 (trick score = 120 + 50 part score bonus)
- 3NT make 3 non-vulnerable – 400 (trick score = 100 + 300 game bonus)
- 4♠ making 5 vulnerable – 650 (trick score = 150 + 500 game bonus)
- 6♦ making 6 non-vulnerable – 920 (trick score = 120 + 300 game bonus + 500 small slam bonus)
- 7NT making vulnerable – 2220 (trick score = 220 + 500 game bonus + 1500 grand slam bonus)

The scoring for making a doubled contract is a little more complex.

- Trick scores are doubled for non-overtricks. For example, the trick score for clubs is doubled from 20 to 40 per trick.
- Overtricks are 100 per trick not vulnerable, 200 per trick vulnerable, regardless of which suit the contract is in.
- You get a 50 points bonus "for the insult."
- If the trick score for making the contract exactly is 100 or more, you get the game bonus. So you can be "doubled into game" whereby a contract that would normally be a part score if not doubled is now a game contract. Therefore, all part score contracts between 2♥ and 3♠, if doubled, will become game contracts. Doubled contracts of 2♦ and below remain as part score contracts.

Here are some example scores:

- 1NT making – undoubled score = 90 (trick score = 40, part score bonus = 50). Doubled score = 180 (trick score = 80, part score = 50, doubled bonus = 50)

- 2♦ making 3 vulnerable – undoubled score = 110 (trick score = 60, part score bonus = 50). Doubled score = 380 (nonovertrick score = 80, overtrick = 200, part score bonus = 50, doubled bonus = 50)
- 2♠ making 2 vulnerable – undoubled score = 110 (trick score = 60, part score bonus = 50), doubled score = 670 (trick score = 120, doubled bonus = 50, game bonus = 500)
- 4♥ making 4 not vulnerable – undoubled score = 420 (trick score = 120, game bonus = 300). Doubled score = 590 (trick score = 240, game bonus = 300, doubled bonus = 50)

Let us examine how the scoring for making a doubled contract affects the decision of whether or not to double.

- If an opponent makes a contract which you doubled into game, that is very bad. You turned a 50 point bonus into a 300 or 500 point bonus.
- If they make overtricks, especially vulnerable, that is also bad. You turned a small bonus of 20-30 into a 100 or 200 point bonus.
- You never like it when the opponents make a doubled contract. However, if you did not double them into game (or they were already in game) and they did not make any overtricks, the consequences are not as bad. For example, notice that 1NT doubled making is 180 vs. 90 if not doubled, a difference of 90 points. If they were vulnerable and you set them even 1, you would have gained 100 points. So, doubling them when you are pretty certain they will at worst make exactly and are likley to go down (and you are not doubling them into game) can be a reasonable bet.

Although it is rare, for completeness let me discuss the scoring of redoubled contracts. The concepts are very similar to making doubled contracts.

- Trick scores are quadrupled for non-overtricks. For example, the trick score for clubs is quadrupled from 20 to 80 per trick.
- Overtricks are 200 per trick not vulnerable, 400 per trick vulnerable, regardless of which suit the contract is in.
- You get a 100 points bonus "for the insult."
- All redoubled contracts, except for 1♣ and 1♦, that would be part scores if not doubled, are now redoubled into game. Note that the trick score for 1♥ and 1♠ redoubled is 120 and for 1NT redoubled is 160, all of which are over 100.

<u>Scoring When You Defeat A Contract</u>

Undoubled contracts

- nonvulnerable - 50 per undertrick
- vulnerable - 100 per undertrick

Doubled contracts

- non-vulnerable – 100 for 1st undertrick, 200 each for 2nd and 3rd undertricks, 300 each for subsequent undertricks. Thus the progression is 100 for down 1, 300 for down 2, 500 for down 3, 800 for down 4, 1100 for down 5, and so forth.
- vulnerable – 200 for 1st undertrick, 300 each for subsequent undertricks. Thus the progression is 200 for down 1, 500 for down 2, 800 for down 3, and so forth.

Let me discuss how the scoring of defeated doubled contracts affects your decision as to whether or not to sacrifice over the opponents' game bids:

- At favorable vulnerability (you are not vulnerable and the opponents are vulnerable), you can afford to go down 3 and still make a profit. You will be minus 500 and their vulnerable game is worth at least 600.
- At equal vulnerability (whether both sides are vulnerable or not), you can afford to go down 2 and still make a profit. Non-vulnerable you will be minus 300 and their game is worth at least 400. Vulnerable you will be minus 500 and their game is worth at least 600.
- At unfavorable vulnerability (you are vulnerable and the opponents are not vulnerable) you can only afford to go down 1 trick and still make a profit. You will be minus 200 and their game is worth at least 400. Successful sacrificing at unfavorable vulnerability is rare. I have occasionally seen hands where it works out, but, unless you think there is some chance that you will make your contract, you should avoid purposely sacrificing at unfavorable vulnerability.

Although redoubled contracts are very rare, I will briefly mention that the scoring is twice that of doubled contracts. Thus, for example, vulnerable undertricks are 400 for the 1st undertrick and 600 for each subsequent undertrick.

IMP Scoring

As way of introduction, let me discuss a logical way to score a team match, where each team has one pair playing North/South and the other pair playing East/West. Assume you are playing North/South and are in 4♠ making 4 vulnerable for a result of 620 points. Assume the other team's North/South pair are in 3♠ making 4 for a result of 170 points. A reasonable way to score that hand would be to subtract the opponents' result from your result. So you would be +450 (620 minus 170).

That is the basic idea behind IMP Scoring. However, in order to lessen the effect of a really bad result, it was decided to scale the absolute score such that larger scores did not have as much of an impact. So the IMP scale translates absolute scores to a number between 0 and 24.

For example, a score difference of 20-40 is 1 IMP, a score difference of 50-80 is 2 IMPS, and so forth. In the example above, 450 translates to 10 IMPs. See Appendix A at the end of this tutorial for the complete IMP scale.

Without the IMP scale, a score difference of 500 would be 10 times better than a score difference of 50. But with the IMP scale, 50 translates to 2 IMPs while 500 translates to 11 IMPS, so the 500 is 5.5 times better than the 50.

IMP scoring is similar for pairs games, such as what is done on BBO. Each opponent's score is subtracted from your score and converted to IMPS. The IMPS are then summed and divided by the number of opponents.

Here is an example set of scores:

Pair	Contract	Score	IMPS	Details
1	4♥	620	10.5	vs. 2 10 IMPS (+450) vs. 3 10 IMPS (+480) vs. 4 10 IMPS (+480) vs. 5 12 IMPS (+720) Totals 42 IMPS / 4 = 10.5 IMPS
2	3♥ +1	170	-0.25	vs. 1 -10 IMPS (-450) vs. 3 1 IMP (+30) vs. 4 1 IMP (+30) vs. 5 7 IMPS (+270) Totals -1 IMPS / 4 = -0.25 IMPS
3	3♥	140	-1.25	vs. 1 -10 IMPS (-480) vs. 2 -1 IMPS (-30) vs. 4 0 IMPS (0) vs. 5 6 IMPS (+240) Totals -5 IMPS / 4 = -1.25 IMPS
4	3♥	140	-1.25	vs. 1 -10 IMPS (-480) vs. 2 -1 IMPS (-30) vs. 3 0 IMPS (0) vs. 5 6 IMPS (+240) Totals -5 IMPS / 4 = -1.25 IMPS
5	4♥ -1	-100	-7.75	vs. 1 -12 IMPS (-720) vs. 2 -7 IMPS (-270) vs. 3 -6 IMPS (-240) vs. 4 -6 IMPS (-240) Totals -31 IMPS / 4 = -7.75 IMPS

Here are some conclusions you can draw from the above example:

- Bidding and making the vulnerable game is very beneficial. Pair 1 gained at least 10 IMPS compared to the 3 pairs that bid and made the 3H partial score.
- Overtricks are not important. Pair 2 only gained 1 IMP for making 1 more trick than Pairs 3 and 4.

- Going down in a contract that makes is very costly. Pair 5 had a difference of over 18 IMPS compared to Pair 1 who bid the same contract and made it. And had Pair 5 bid and made 3♥, that would have saved them 6.5 IMPS.

Prior to the advent of computers, scoring a pairs game using IMPs would have been impractical. For example, in a 24 board 8 table game, for each board, the director would have to calculate 56 IMP results (7 results for each of 8 pairs) over 24 boards, which would be over 1300 calculations, obviously too much work to do manually. That is why match points (see below) were invented for pair games, because the scoring is much quicker. With computers, IMP scoring is now practical with pairs games, but match points is still the norm for pair games at most live clubs.

By the way, IMP stands for International Match Points.

Victory Points

Victory points are a method of determining the winner of a team event where each team plays the same number of matches. The most common event of this type is Swiss Teams, where each team plays 7 matches each consisting of 7 boards.

Victory points are used to determine overall places. They work as follows:

- The IMP margin of victory is calculated for a given match.
- That margin of victory is used to distribute victory points (typically 20 total victory points) between the 2 teams. The closer the match, the more evenly the points are distributed. For example, in a tie match, each team would get 10 victory points. If a team won by 10 IMPS, the winning team would get 14 victory points and the losing team 6 victory points. If a team won by 28 IMPS, the winners would get 20 victory points and the losers 0 victory points.
- The total number of victory points for a team is used to determine that team's rank in the event.

See Appendix B for a complete 20 point Victory Point scale for a 7 board match.

Match Point Scoring

Match point scoring is what is used in most live pairs games. It works as follows:

- You get 1 point for each pair whose score is worse than yours.
- You get 1/2 point for each pair whose score is tied with yours.

In pair games, your score on a board is usually expressed in the actual number of match points you scored on that board. On BBO, it is expressed as a percentage of the maximum number of match points you could win on the board had your score been the highest.

Let me repeat the example I used above for IMP scoring, score it using match points, and compare it to the IMP score.

Pair	Contract	Score	Match Points	Match Point %	Details	IMPS
1	4♥	620	4	100%	Beat 4 scores	10.5
2	3♥ +1	170	3	75%	Beat 3 scores	-0.25
3	3♥	140	1.5	37.5%	Beat 1 score, tied 1 score	-1.25
4	3♥	140	1.5	37.5%	Beat 1 score, tied 1 score	-1.25
5	4♥ -1	100	0	0%	Low score	-9.75

Here are some conclusions you can draw from the above example:

- The size of your score does not matter, just how many people you do better than. Pair 2 did very well compared to Pairs 3 and 4 despite the fact that their score was only 30 points higher. Similarly, Pair 1 only did a little better than Pair 2 even though their score was 450 points higher.
- Overtricks do matter. Pair 2 did much better than Pairs 3 and 4 by simply making an overtrick.
- Bidding game does not always help as much as in IMPS. Pair 1 would have done almost as well had they been in 3♥ making 4 (just like Pair 2).

Let me define some common terms used in match point scoring:

- *Average* – the # of pairs you did better than was about the same as the # of pairs who did better than you. Your match point % is about 40% - 60%.
- *Average Plus* – you did better than a majority of pairs. Your match point % is about 65% - 85%.
- *Average Minus* – you did not do as well as a majority of pairs. Your match point % is about 15% - 35%.
- *Top* – you did better than all pairs, perhaps tieing 1 or 2 at most. Your match point % is about 90% - 100%.
- *Bottom* – you did worse than all pairs, perhaps tieing 1 or 2 at most. Your match point % is 0%-10%.

Although the scores of individual boards are usually described in terms of actual match points (except on BBO where they use match point %), your overall score is usually expressed as a percentage of the theoretical maximum score you can achieve. For example, in an 8 table game with 24 boards, your theoretical maximum is 168 match points (7 match points on each board x 24 boards). If your match point score was 84, that would be a 50% game. A 55+% game is good and should usually earn you some master points. A 60+% game is excellent and will often result in a 1st or 2nd place finish.

Most expert players prefer IMP scoring to match points. They feel it is a truer test of bridge skill and minimizes luck.

I, on the other hand, strongly prefer match points. I think it a much more interesting form of

bridge. Although bridge in any form is never boring, in IMP scoring many hands are inconsequential and you can relax. Even if the declarer or the defense slip a trick, that will only result in a small loss or gain. An IMP match comes down to how well you do on a small minority of crucial boards with big swings. In match points, on the other hand, every board counts. An overtrick can be crucial. You have to be on your toes on every hand because a small slip can be very costly.

Tactical Considerations Based On Scoring

In this section, I will cover what I feel are the more important elements you should consider in bidding and play based on the scoring. This list is certainly not exhaustive, and there are many books that cover this subject in much greater detail. But this section will at least give you a good idea of the basics.

General Philosophy

- Strive for consistency. Try to be average to above average on every hand. Do not take big risks in search of big rewards because you will fail more often than not. To do well at bridge, you need to minimize your mistakes, not try to maximize your score.
- Your first priority is to make your contract. This is obviously true for IMPs, where an overtrick is inconsequential. But even in match points, there are very few hands where you should risk your contract for an overtrick.

Part Scores

- In IMPS, you do not need to be overly aggressive. You should not bid one more if you are reasonably certain you are going down. If you are going down, even if they make their contract, your IMP score will be similar. The Law of Total Tricks and my competitive bidding guidelines work very well in IMPs.
- Part score bidding in match points is much more complex. The size of your score does matter. Say for example, they are in 3♦ and your suit is hearts. If they make 3♦, that is -110. Even if you go down 1 in 3♥., that is -50 or -100, which is a better match point score. So you should be more aggressive in bidding 3 over 3 in match points (but it is still often the wrong thing to do).
- In IMPs, the objective is to be plus. As declarer, you should always find the safest way to make your contract and worry very little about overtricks. Similarly, as defender, you should try and come up with a way to beat the contract, even if it is low percentage, because giving up an overtrick in the process is inconsequential once they make the hand.
- In match points, part score strategy is much more complex. You have to try for the biggest plus or smallest minus you can get. As declarer, you should still always find a safe way to make your contract, but you can try a slightly less safe way in pursuit of overtricks. On defense, you often play passive defense, trying not to give up overtricks rather than trying to beat the contract.

- In IMPs, it is fairly rare (although not unheard of) that you double a part score. Unless you are fairly sure you are setting them at least two, the risk of their making it when you double them into game outweighs the reward of extra points for setting them 1, even vulnerable. Usually you only double when you have length in their trump suit.
- In match points, doubling a part score can be quite profitable. This is one area in which less experienced players are too timid. Down 1 doubled vulnerable is worth +200, which is a larger score than any partial you can make. This is just about guaranteed to be a top board. And if they make their contract, you were likely getting an average minus anyway. So doubling a vulnerable part score has high reward and low risk. I get some of my best results using this tactic.

Games

- Successful IMP players aggressively bid games, especially vulnerable games, even if they are less than 50%. Let me explain why.

Say you are considering whether or not to bid 4♥. If you make it, you will be +620 and your opponents will be +170, which means you will win 10 IMPs. If you go down, you will be -100 and your opponents will be +140, which means you will lose 6 IMPs.

Suppose the odds of making game are only 40% (such as you need a 2-2 break). That means if the hand is played 10 times, it will make 4 times and go down 6 times. So you will win 40 IMPs the 4 times it makes and lose 36 IMPs the 6 times it goes down. Therefore, your net gain over 10 hands is 4 IMPs.

The point of all this math is to demonstrate why you should bid all close games in IMPs, even if their odds are a little less than 50%.

- In match points, on the other hand, the game bonus is not worth any more than an overtrick. So you should only bid games where the odds favor that they make. You should avoid bidding close games. In fact, I would say it pays to be somewhat conservative when deciding whether or not to bid games in match points.

Slams

- The decision of whether or not to bid a small slam is the same in both IMPs and match points. Basically, you should only bid a small slam that is better than 50%.

The math in match points is fairly simple. If you make it, you will score 1 match point over all opponents who do not bid the slam. If you go down, you will score 0 match points. If you don't bid slam, you will get 1/2 match point for a tie. So on a 50% slam you will break even over the long run, gaining 1/2 a match point half the time and losing 1/2 a match point the other half.

The math in IMPS is as follows. Assume you are vulnerable and are bidding a major suit slam. If the slam makes, you will be +1430 and you opponent will be +680. You will win 13 IMPs for being +750. If the slam goes down, you will be -100 and your opponents will be +650. So you will lose the same 13 IMPs for being -750 instead of +750.

- You should only bid grand slams which are virtually certain to make. You should be able to count 13 tricks. In fact, if you never bid a grand slam, you will come out ahead

in the long run. Even bidding a grand slam that simply depends on a 3-2 break (68%) is very iffy.

The basic reasoning is because when you bid and make a small slam, most of the time you will be getting an above average result. As I said in the first part of this section, your goal should be to get average and above average results and avoid bad results. So there is little reason to try for a little extra by bidding a grand slam when you will be getting a good result anyway by bidding and making a small slam.

Let's use IMP scoring to explain the reasoning mathematically. If you bid and make a major suit grand slam vulnerable, your score will be 2210. If your opponents only bid the small slam their score with be 1460. You will gain 13 IMPs for being +750. If the slam goes down, you will be -100 and your opponents will be +1430. You will lose 17 IMPs by being -1530.

You will be +750 against pairs who don't bid the small slam (1430 for you vs. 680 for them) which is 13 IMPs. Let us assume that half the pairs bid the slam. (If you look on BBO at potential slam hands, you will find that most of the time less than half the pairs bid slam, so I think I am making a very reasonable assumption.) That means your IMP score will be +6.5 just for bidding the small slam.

So where does that leave us? Let's say the grand slam is 70% (slightly better odds than a 3-2 break). On 100 hands, if you just always bid the small slam, you will win 650 IMPs (6.5 x 100). But, if you bid the grand slam, on 70 hands you will win 910 IMPs (70 x 13) and on 30 hands you will lose 510 IMPs (30 x 17) for a total gain of 400 IMPs.

That means you are better off bidding the small slam (650 IMPs on 100 hands) than the grand slam (400 IMPs on 100 hands). And that is only if the grand slam is a strong favorite to make (70%). Some grand slams that you bid may be on a finesse or even worse. The bottom line is, that unless the grand slam is an overwhelming favorite (meaning you can count 13 tricks), you should not bid it.

Appendix A - Complete IMP Scale

Difference in points	IMPs
20-40	1
50-80	2
90-120	3
130-160	4
170-210	5
220-260	6
270-310	7
320-360	8
370-420	9
430-490	10
500-590	11
600-740	12
750-890	13
900-1090	14
1100-1290	15
1300-1490	16
1500-1740	17
1750-1990	18
2000-2240	19
2250-2490	20
2500-2990	21
3000-3490	22
3500-3990	23
4000+	24

Appendix B – 20 Point Victory Point Scale for a 7 Board Match

Margin of Victory (IMPs)	Winner Victory Points	Loser Victory Points
0	10	10
1-2	11	9
3-4	12	8
5-7	13	7
8-10	14	6
11-13	15	5
14-16	16	4
17-19	17	3
20-23	18	2
24-27	19	1
28+	20	0