Chapter 7:

Fishing

One reason why people love sports and games is the "almost" moments. For every great shot, there have been countless near misses: baseballs hit the warning track, buzzer beaters fall short, and Hail Marys fall unanswered.

In Scrabble, many of those "almost" plays can turn into great plays. By playing off a few tiles, you can turn the rack you have into the rack you want by fishing. Fishing is the act of playing or exchanging tiles in hopes of drawing a high scoring play or bonus on the next turn. In most cases, fishing requires a basic knowledge of a significant number of frequently occurring bonuses. (A short list of likely bonuses are available in the back of the book.)

The strength of fishing plays is dependent upon three things: the valuation of other candidate plays, the likelihood that you will draw a bonus, and the ability of those bonuses to play on the board next turn. Fishing is pointless if there are no spots to play a bonus or drawing a bonus is unlikely.

Opening rack: AEEERST

This is a good example of a rack that you should fish with. Exchanging the E allows you to bonus with many tiles in the bag. By going through each letter, you can see that the odds of drawing a bonus with AEERST are quite high:

A: AERATES
B: BEATERS, BERATES, REBATES
C: CERATES, CREATES, ECARTES
D: DEAREST, DERATES, SEDATER, etc.
F: FEASTER
G: ERGATES, RESTAGE
H: AETHERS, REHEATS, HEATERS
I: AERIEST, SERIATE
K: RETAKES, SAKERET
L: ELATERS, REALEST, RELATES, etc.
M: RETEAMS, REMATES, STEAMER
N: EARNEST, EASTERN, NEAREST
O: ROSEATE
P: REPEATS, RETAPES
R: RETEARS, SERRATE, TEARERS,
S: RESEATS, TEASERS, TESSERA, etc.
T: ESTREAT, RESTATE, RETASTE
U: AUSTERE
W: SWEATER
X: RETAXES

Fishing plays require an open board so that once you draw a bonus, you can play it. Without an open board, even strong leaves such as AEERST do not merit fishing. Fishing plays are only best when a good draw will result in a bonus, even if your opponent tries to block.

Diagram 1:

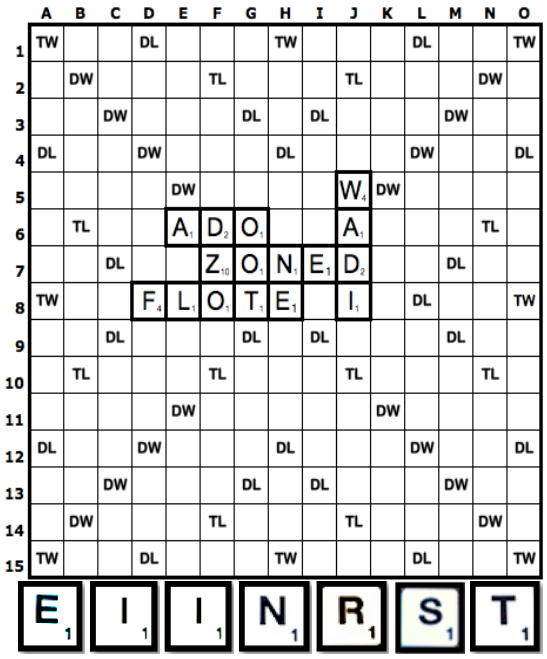
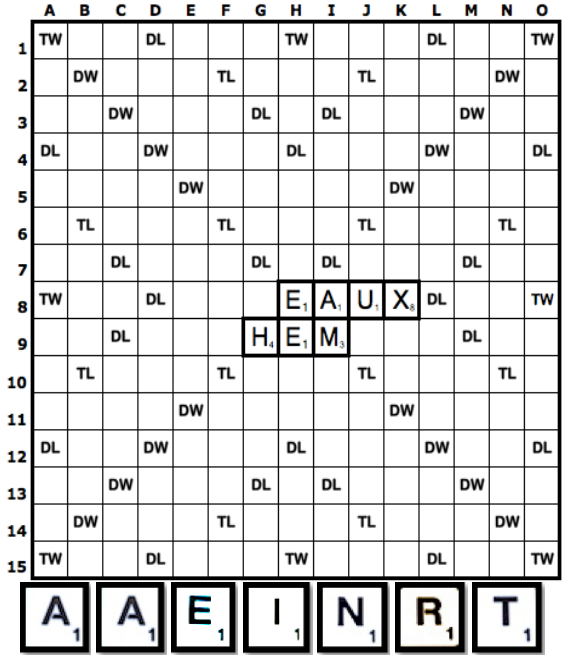


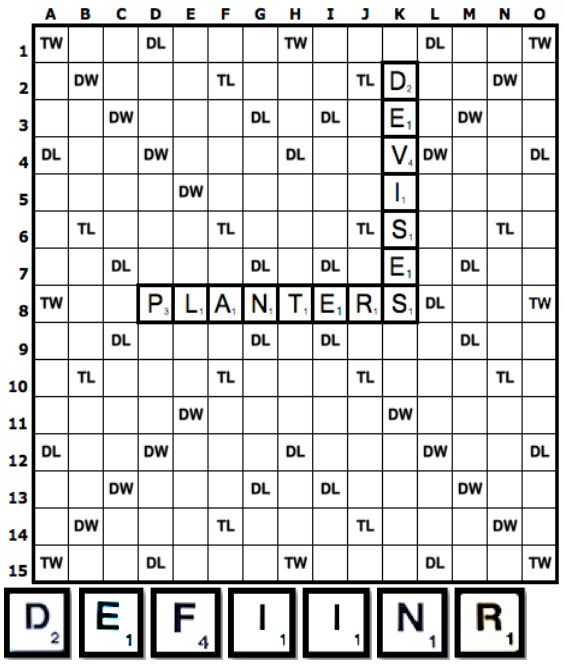
Diagram 2:



In Diagram 1, you should play IF d7, fishing for a bonus. EINRST is a very strong leave, and IF creates another good bonus line along column c.

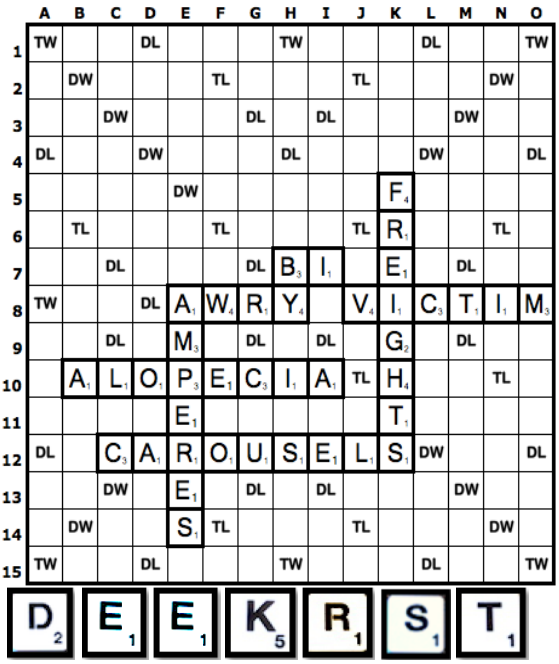
In Diagram 2, you should play AX, creating bonus lines on row 6 and column l. This will allow you to bonus frequently on your next rack.

Diagram 3:



Choices: IF j2 (17), IF 9h (20), FERVID 4h (34), IF 7h (20)

Diagram 4:

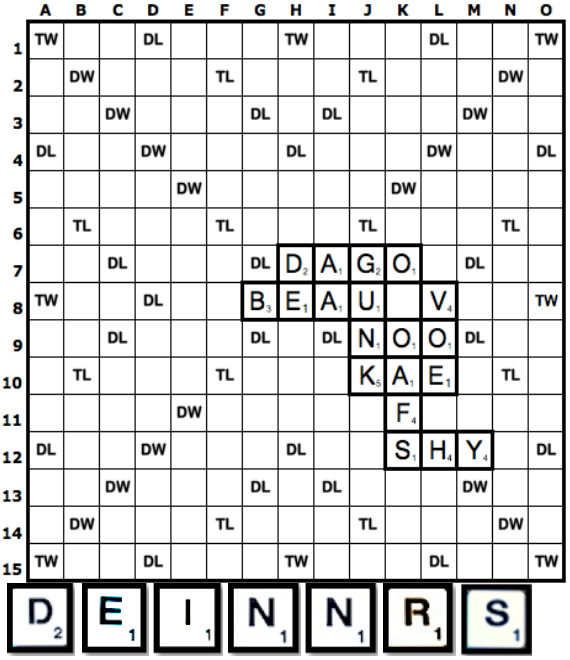


Choices: KA i9 (11), KI i6 (6), TSK 14d (17), DESK 14c (19)

In Diagram 3, instead of playing FERVID 4h, you should make a fishing play playing IF. IF is strongest at j2, opening row 1 for your D or R.

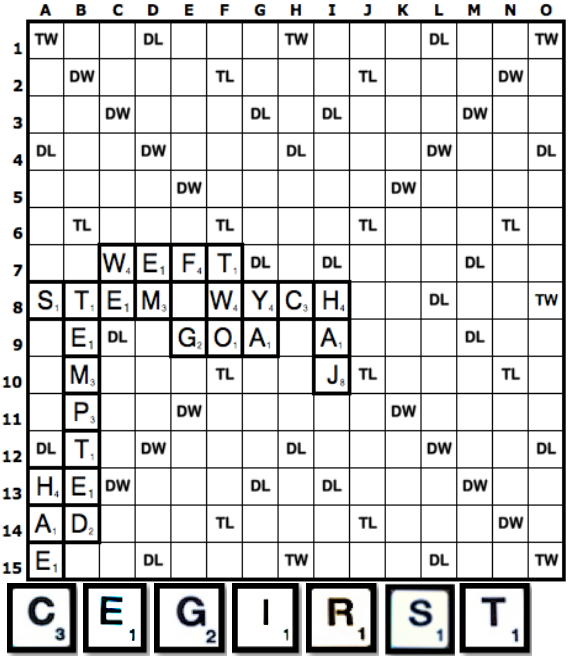
In Diagram 4, you should play KI 6i for 6 points, setting up another bonus column. Although it scores less than KA i9, you must create a bonus line for your case S.

Diagram 5:



Score: 23-54
Choices: DEN h7 (4), NOON 9j (5)

Diagram 6:



Score: 81-100
Choices: YAG g8 (7), GEM d6 (6)

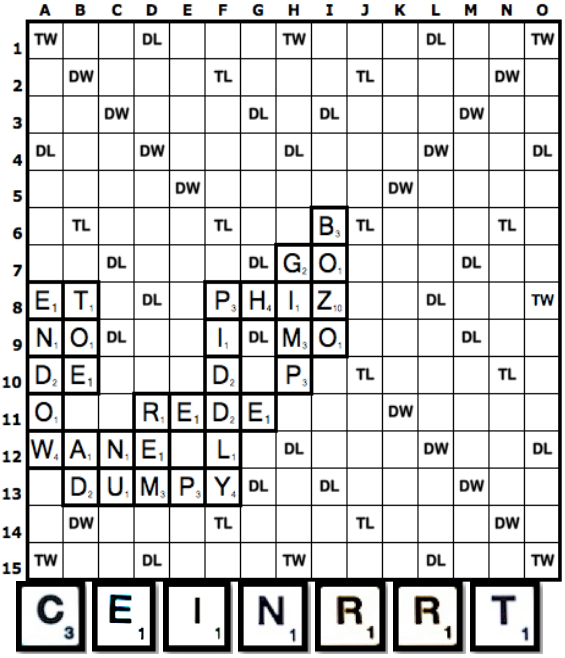
In Diagram 5, NOON is better because it opens a new bonus line that is difficult to block, while DEN allows your opponent to effectively block the board.

In Diagram 6, GEM is better than YAG since it does not block row 11, which can be used to play your future bonus next turn.

Diagram 7:

Score: 304-347
Choices: REF l2 (6), RAFT 4j (7)

Diagram 8:



Score: 137-189
Choices: GOR 6h (4), NOR 9a (4), MOR 9h (5)

In Diagram 7, you should play RAFT, creating an S-hook at n4 for a second bonus line. Although REF also creates another bonus line (TREF), rows 1 and 2 can be blocked simultaneously. After RAFT, either row 2 or column n will remain open next turn.

In Diagram 8, you could play GOR 7h (4) or MOR 9h, creating a better bonus line. However, by playing GOR you allow your opponent to simultaneously block both of your bonus lines (on column j and k): something they could not do before. By playing NOR 9a, you insure that one of your bonus lines on column j will remain open.

Permutation

As human beings, we'd like to believe that our thoughts are unique: that everyone approaches situations differently according to their special traits and experiences. However, most people approach decision making in games (as well as life) fairly similarly. Indeed, most decisions involve the same three-step process that I will call the General Decision Process:

General Decision Process:

1. Identify the general circumstance you currently face.
2. Identify the appropriate guideline(s) that apply to your particular situation.
3. Commit the action that corresponds to the guideline(s) specified in step two.

This process is often effective, and is used for most decision making in all games. However, there are times when we can make better decisions by using a different process. Many times, the *general* circumstance is not specific enough, and thus the guideline does not apply. Guidelines exist as general maxims, but they are not meant to be applied universally, particularly when there is a lot of information available. It is important to understand that there are exceptions to any guideline.

If you want to take your game to the next level, you will need a more complex thought process. Advanced strategists use the following process to make decisions:

Advanced Decision Process:

1. Identify all of your potential options that *seem* reasonable.
2. Evaluate the ramifications of each option by doing your best to predict what will happen in the future.
3. Compare those ramifications in order to figure out the best play.

This process looks similar to the General Decision process, but involves more specificity. It requires analyzing your options and figuring out exactly what will occur rather than simply applying a general guideline. The act of analyzing all of these options and ramifications is known as *permutation*. Permutation requires a lot more energy and is subject to a lot more error than the General Decision Process.

Sometimes you will be unable to use permutation: you can't always quickly or effectively evaluate each option's ramifications or effectively compare those ramifications. In those instances, you are relegated to going through the General Decision Process. However, in the situations where the Advanced Decision Process is applicable, it can lead to better decisions.

Permutation and Fishing

One of the most common uses of permutation is to help you evaluate fishing plays. Fishing plays must have a high rate of success, since a 10 point play followed by a 60 point bonus is equivalent to making two 35 point plays. Most amateur players fish far too often because they overestimate their chances of playing a bonus next turn.

Permutation enables you to determine how often you will draw the tiles you want to make a bonus or high-scoring play. To determine how often you will draw your bonus, you should go through each available tile in the pool (A-Z) and determine how often those tiles will enable you to make your desired play.

As beginners, you are liable to make mistakes at first. Don't worry: it happens to everyone. As you gain practice, your ability to perform permutation will improve. However, it is important that everyone *try* to perform permutation. It is a vital skill to master in many games beyond Scrabble, and can be used to find better plays in many other facets besides fishing.

Many players initially feel overwhelmed when performing permutation. Thus, at first I recommend going through only the most common letters and adjusting downward (since it's harder to make a bonus with an F, G, or X, than an E, N, or R). As you begin to feel more comfortable, you can go through more tiles when performing permutation.

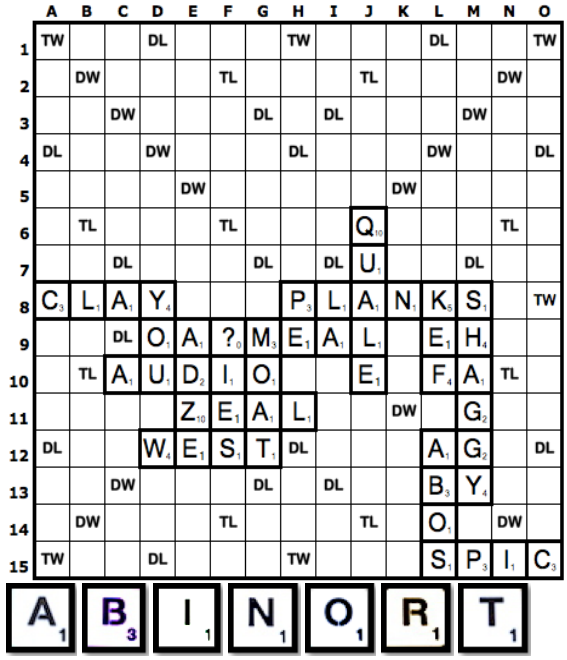
As an example, let's look at the DEEIMT leave, and only go through the most common letters: AEIO and DLNRST. With an A we have a bonus (MEDIATE), and there are several bonuses with the R, (MERITED, RETIMED, MITERED, DEMERIT, and DIMETER), the N (DEMENTI) and T (EMITTED). However, there are no bonuses with the E, I, O, D, L, or S. Thus, a bonus is somewhat unlikely, since it fails to bonus very often, even if you manage to draw a good bonus tile. (If you investigate further, the only other possible bonuses are BETIMED/BEDTIME and EMPTIED.)

Permutation can help you to illuminate the strengths of many leaves. Some enticing leaves lose their appeal once you analyze them in greater depth. For example, AEGINT forms a bonus with few tiles. (BFHLMNRSUVZ?, or only 36 out of 93 tiles) Meanwhile, other racks become much more attractive after permutation: for example, IORSTU bonuses with significantly more tiles (ACEGKLMNOST?, or 56 out of 93 tiles). There is no good way to intuit which tiles to keep when fishing: you must go through each tile and determine how often your fish will succeed.

Most players are too lazy to perform permutation, and instead choose to "eyeball" which leaves are best to fish with. In some cases, this approach works very well: for example, AEERST *looks* like a strong leave, and indeed it is. However, sometimes fishing plays are not so intuitive. For example, let's take the opening rack EILNRSS. With this rack, the best leave is the ugly-looking EILNSS. This may seem unintuitive, as other leaves seem more appealing such as EINRS, EILNRS, and EINRSS. However, EILNSS leads to a bonus more often than any other leave with that rack.

It is true that you don't *need* to use permutation: if you don't know a lot of words or are a slow anagrammer, you might be best off disregarding permutation entirely. But if you want to become serious about Scrabble, you should consider permutation as a tool to help you make better fishing plays.

Diagram 1:



Score: 231-201
Last play: Exch. 4
Choices: BA c7 (7), OBA k11 (24),
BO n10 (27), LAB i8 (9), BI 14n (8)
Pool: DDDEEEEEEEEFFGHIIIIIIJM
NNNNOOOORRRRRSTTTTUUVVWX?

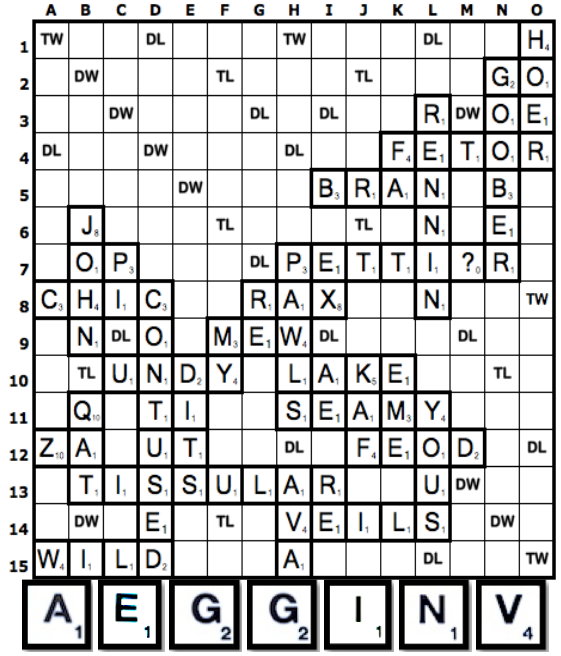
Diagram 2:

Score: 263-285
Last play: Exch. 5
Choices: MELT i10 (13),
MET i10 (11), MY 10i (10)
Pool: AAAACDDEEEEEEEEFGHII
LNOOOOOPRUUWXZ?

Diagram 1 is an excellent opportunity to fish: there are no good scoring plays available. Playing the B often results in a bonus. No matter what your opponent does, you will bonus if you draw one of the 3 Ds, 7 Es, the blank, the M, and the H. Other tile draws may also bonus some of the time, with plays like CARROTIN, FRACTION, TRACTION, TRIGONAL, ORATION, RAINOUT, and other plays that may present themselves after your opponent's response. BA is slightly better since it allows some bonuses using row 6.

Similarly, Diagram 2 is also a good fishing situation. By playing MY 10i, you can bonus to the G if you draw an A, E, I, or O, which comprise more than 1/3 of the tile pool. Since your opponent doesn't know your rack, it is unlikely they will block the G next turn.

Diagram 3:



Score: 304-384
Pool: ADEIIOOU

Diagram 4:

Score: 138-157
Pool: AAAACCEEEEEEEFGHIIIIJM NNOOOOOOPRRRRRSSSTTTUVZ??

A common mistake players make is fishing off the wrong tile(s). Many players fish off the worst tile in their leave and completely disregard the tile pool, forgetting to ask themselves what tile(s) they must draw to play a bonus next turn.

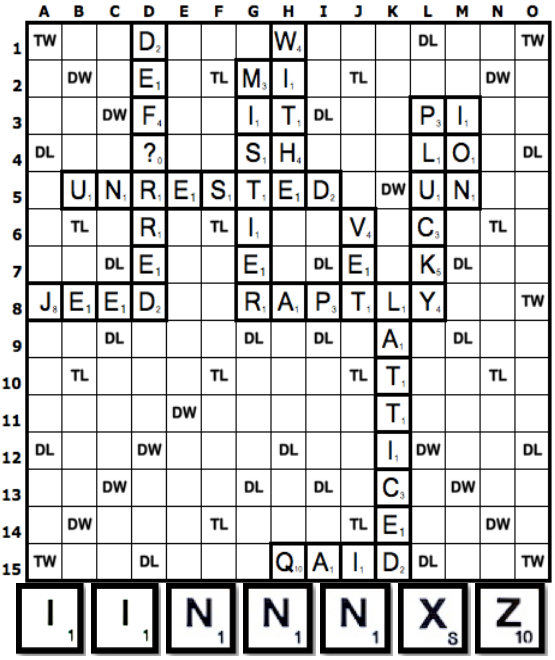
In Diagram 3, you must fish for a bonus. Your best tile draw is the I, which gives you hope to draw the word GINGIVA. The best place to play the E is m1, setting up row 1 alongside row 4 and column e.

Many players become lazy and play off the V or G. This is a mistake: whenever you fish, you should be aware of the tiles you must draw to win. While getting rid of your worst tiles requires less mental effort, it is not sound strategy.

Other people miss opportunities to fish. They feel their rack is too weak to fish, or they fail to find fishing opportunities for their non-bonuses. Many mistakes come from players ignoring the possibility of fishing.

In Diagram 4, keeping AELL fishes for ALKALIZE, ALKALISE/ALKALIES, and ALKALINE at a8, scoring over 100 points. Thus, playing HIT g1 is a good fishing play, keeping this unusually powerful leave.

Diagram 5:



Score: 274-258
Choices: ZIN n1 (29), ZINE 2a (26)

Pool: AAAAAABBEEEFGGGHILLMN
OOOOOOORRRSSTUUVWY?

Diagram 6:

Score: 252-304
Choices: PERCH 5b (33), PUR h7 (15), PRY 9m (11)

Pool: AAAAABDEEEEEEGIIIL
NNNOOOORSSTTTTV

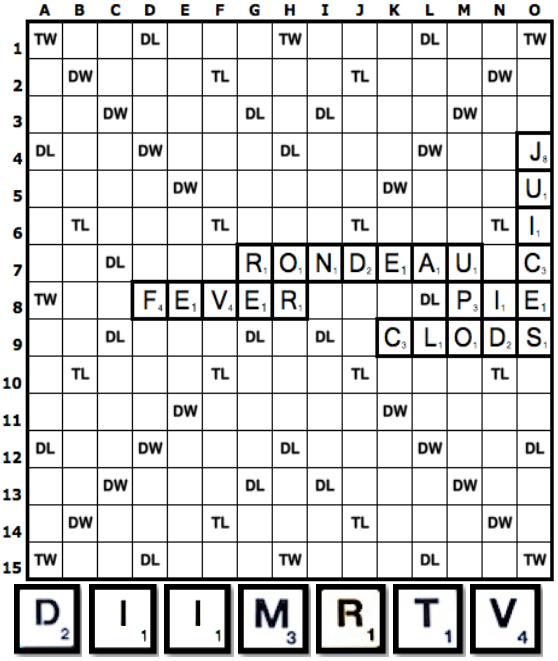
Initially, you might think the best play in Diagram 5 is ZINE 2a for 26. The 3 point sacrifice seems like it would be worthwhile to avoid giving your opponent an easy 50 point play using the o1 TWS square.

However, in this position you are one tile away from XENON or XENIA at 14j. Both of those plays score 81 points! Since the bag containing six As and seven Os, you will draw one of those two tiles over 60% of the time. Thus, you WANT your opponent to use the Z at o1 instead of blocking the 14j hotspot.

The o1 opening left by ZIN is not a liability, but an asset. Although ZIN makes it easier for your opponent to score, it also makes them less likely to block 14j. This type of play is useful when you have tiles that fit best at one specific spot.

In Diagram 6, you are setting up PRY as a diversion to preserve row 5 for plays hooking H-UH. While PUR scores four more points, your opponent will block row 5 more often. You want your opponent to block the SPRY hook and leave row 5 for you to bonus next turn. The goal of PRY is not to set yourself up for a bonus, but to distract your opponent from blocking your best bonus line given your leave.

Diagram 7:

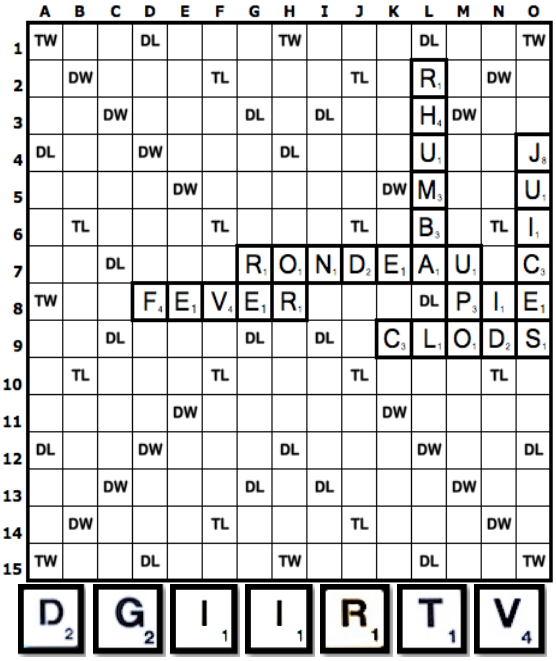


Score: 82-88

Choices: VIM 6f (24), TIMIDER e3 (20), DIVER e5 (18), TIMID 6d (21)

Pool: AAAAAAAABBDEEEEEEEEF GGGHHIIIIIKLLLMNNNNNOOOOOO PQRRRSSSTTTTTUUWWXYYZ??

Diagram 8:



Score: 88-108

Choices: VIRID 2j (34), GRIVET e4 (20), DIGIT 6d (17)

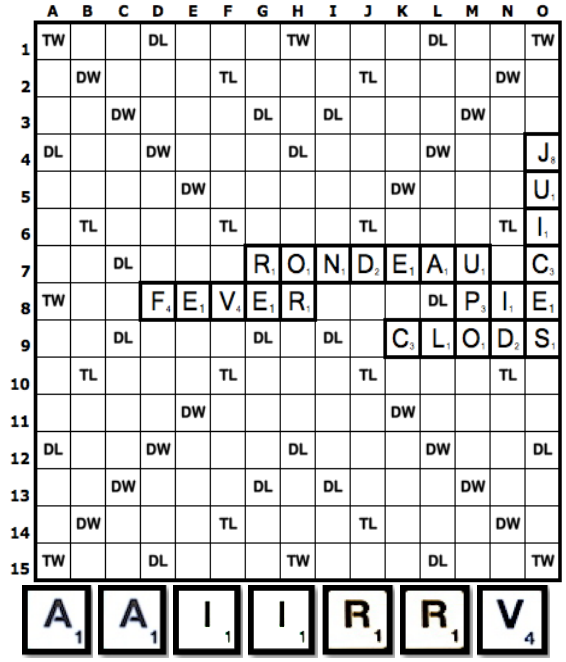
Pool: AAAAAAAABDEEEEEEEE FGGHIIIIIKLLLMNNNNNOOOOOO PQRRSSSTTTTTUWWXYYZ??

In Diagrams 7-10, you can fish for an extension of JUICES to form VERJUICES o1 (63). These diagrams illustrate several factors that should influence your decision on whether or not to fish.

In Diagram 7, you should play TIMID 6d (21). Since TIMID scores well and keeps a decent leave, you should try to draw the high-scoring extension. TIMID sacrifices little valuation in hopes of drawing an E for an unblockable VERJUICES.

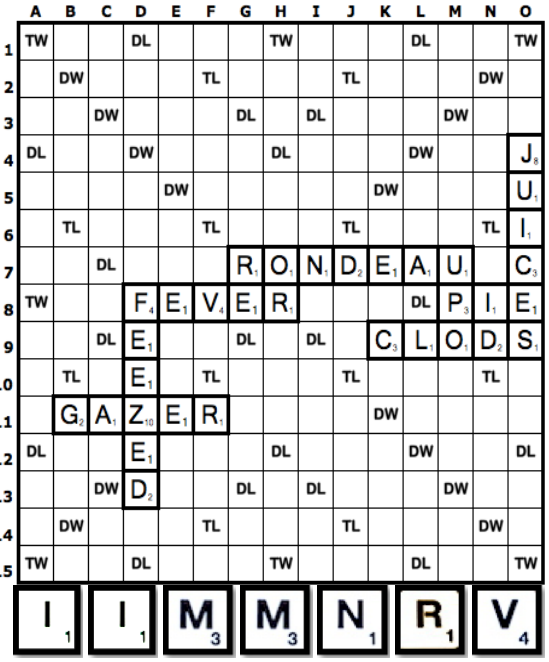
In Diagram 8, you should not play DIGIT and fish for VERJUICES because it will be blocked frequently. Your opponent will often block inadvertently by making a play in rows 2 or 3. In addition, you are sacrificing more points in Diagram 8 than in Diagram 7. Thus, making a fishing play is not appropriate.

Diagram 9:



Score: 82-88
Choices: VIVARIA f8 (23),
AIR 6i (14), LAARI l9 (10)
Pool: AAAAAABBDDEEEEEEEF
GGGHHIIIIIKLLLMMNNNNNOOOOOO
PQRRSSSTTTTTTUUWWXYYZ??

Diagram 10:



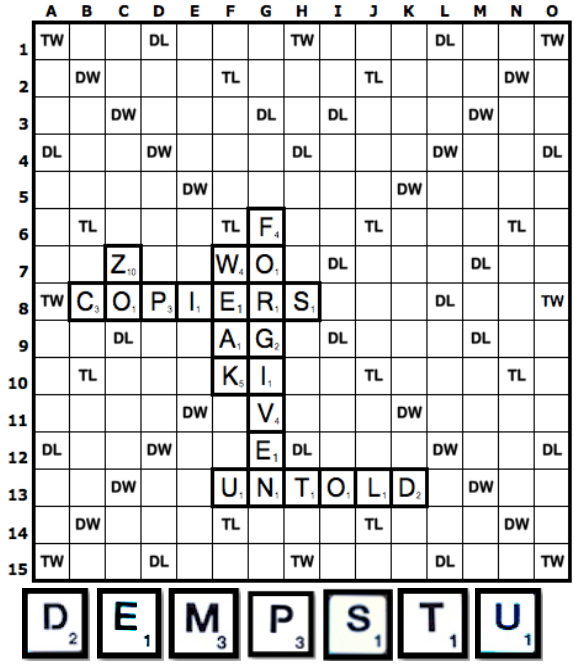
Score: 112-126
Choices: MINIVER e3 (26),
MINIM 6d (19)
Pool: AAAAAAABBDEEEEF
GGHHIIIIIKLLLNNNNOOOOOO
PQRRSSSTTTTTTUUWWXYY??

In Diagram 9, you shouldn't fish for VERJUICES. Fishing plays require playing few tiles and scoring poorly, making it unlikely that you will draw the E. In these cases, you will often have a poor rack and need to fish again next turn. You are better off balancing your rack with VIVARIA, giving yourself the opportunity to draw something else. You should avoid locking yourself into a fishing play, especially when you have other reasonable options.

Diagram 10 is another position where you should not fish because there are only 4 Es available, reducing your odds of drawing VERJUICES to around 30% after playing MINIM. Since MINIVER scores 7 more points and keeps a better leave, it is a significant improvement over MINIM.

When you are counting the number of tiles you can draw, you should avoid counting the blanks, because VeRJUICES might not be best after draws including the blank. Even when it is the best play, it isn't a substantial improvement over your next best play; thus, the blank's effect on your decision is minimal.

Diagram 11:



Score: 68-120

Choices: UMP 14d (23), STUMP 14b (40)

Diagram 12:

Score: 187-239

Choices: QI 9d (11), QAT m2 (26)

In Diagram 11, you don't have a strong enough leave to fish. While DEST is a good bingo leave, it is not a strong enough leave to sacrifice 17 points, especially on this closed board that doesn't yield many bingos. Fishing on this board requires a much stronger leave (like DEIRST) to justify a 17 points sacrifice.

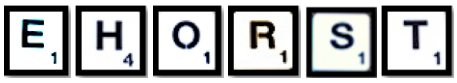
In Diagram 12, fishing is not a strong play either despite the extremely strong AEERST. While many tile draws will lead to a bonus, many of your bonuses will not play on this constricted board. You are better off instead playing QAT and scoring an additional 15 points and leaving the still-promising EERS leave.

Many players become too complacent fishing in racks where there is a significant upside. In each position, you must weigh whether the bonus potential is worth the sacrifice in points while accounting for the openness of the board. Correctly weighing these factors is vital to your future Scrabble success.

The BINGO Test

One of the most common problems that new players have is the inability to figure out what racks make good candidates for fishing. While top players can go through the entire alphabet quickly to figure out which racks are good for fishing, for the rest of us that's just not practical. To deal with this problem, I have devised the BINGO test.

The BINGO test is simple: simply look at whether the rack bonuses with the letters in the word BINGO. If the rack forms a seven letter word with 3 or more tiles, it is likely to be a good candidate to fish with.

Example: 

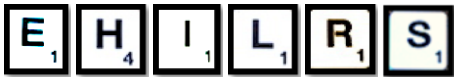
This rack bonuses with 4 of the 5 letters, forming BOTHERS with the B, SHORTIE with the I, THRONES with the N, and SHOOTER with the O (as well as a few other bonuses).

Sometimes this technique will show you the strength of some seemingly ugly racks. For example: bonuses with many letters, such as RUBBERS with the B, BURGERS with the G, BURIERS with the I, and BURNERS with the N.

Similarly, some good looking racks are weaker than they appear, and often fail the BINGO test. CEINOT and EILPRT look like good fishing candidates and form common 6 letter words (NOTICE and TRIPLE) but both fail the BINGO test, and are not all that great for fishing.

The BINGO test is not foolproof. Some poor racks will pass the BINGO test (DEMOOR bonuses with B, I, N, and G, but not much else) while some good racks with fail (EEIRST only bonuses with N, but bonuses with a lot of other tiles).

Quiz: Which of these racks is the stronger bonus rack?

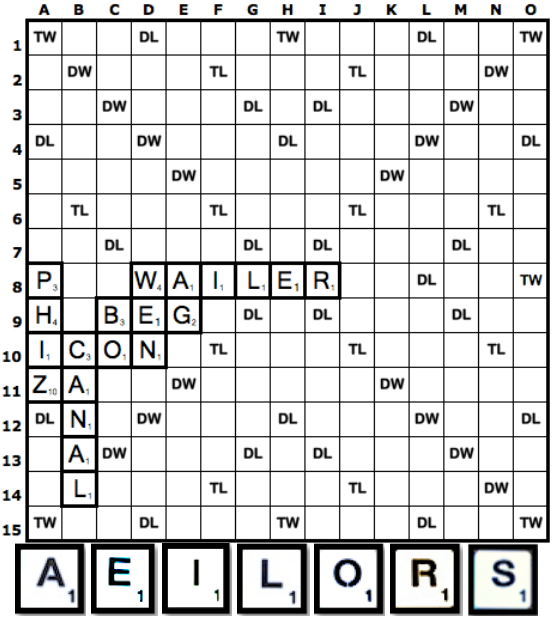
 or ?

A quick inspection will show you that the second rack is much stronger, bonusing with all 5 letters. The first rack forms a bonus with none of the letters in the word BINGO.

PUZZLES #7

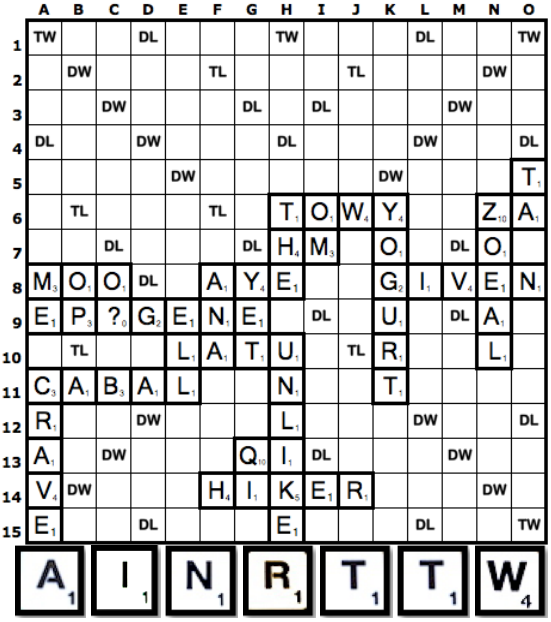
Find the best fishing play! Answers on page 168.

Diagram 1:



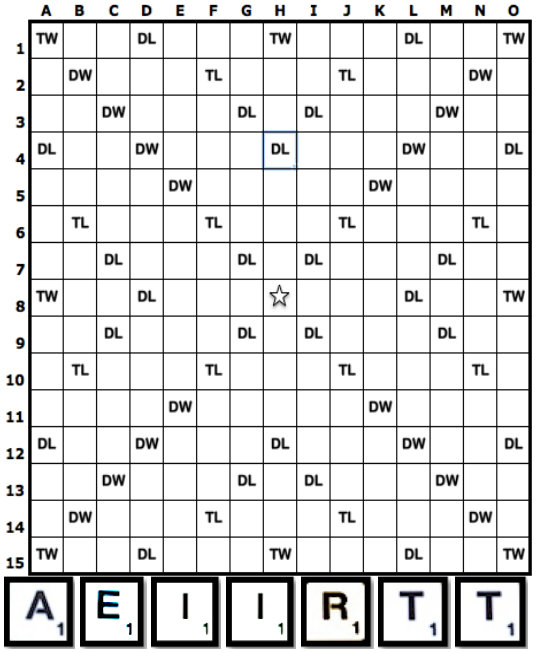
Score: 77-72

Diagram 2:



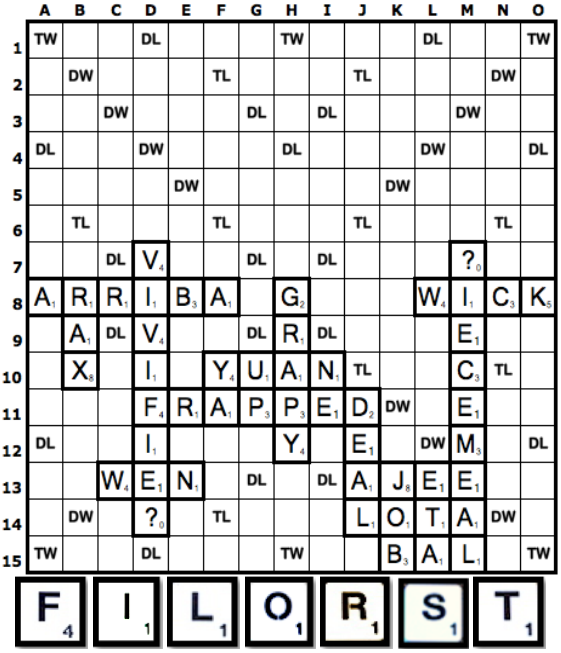
Score: 341-365

Diagram 3:



Score: 0-0

Diagram 4:



Score: 211-272

Pool: ADDDEEEEEGGHHIIIILMNNNN OOOOOOQRSSSTTTTUUUZ