

CHASE™

A 1980's Yard Sale Classic

by Clark D. Rodeffer and João Neto

In the 1980's TSR briefly added board games to their already popular roll-playing lineup. One of their more celebrated offerings was *The Awful Green Things From Outer Space*, by Tom Wham, recently republished by Steve Jackson Games. An undeservedly less popular title from the same series was a game designed by Tom Kruszewski. The name of his game was *Chase*. Following a brief run in the late 1980's, TSR stopped production, presumably in favor of more profitable titles. Thus was one of the most interesting abstract strategy games of the late Twentieth Century relegated to yard sales and on-line auction sites. While copies are seldom easy to find, most are reasonably priced, usually US\$20 or less. However, the components are common enough, so it is easy to improvise a set.

Rules

The game comes packaged in a slim black plastic bifold case. Along with the *Chase* rules, the case contains a colorful double-folded game board and twenty standard six-sided dice, ten blue and ten red.

The board is an array of 9x9 hexagons. The central hexagon, called the *Chamber*, is specially marked. In our diagrams the nine rows of hexagons are labeled A-I. Each hexagon is referred to by its row number and the number of hexagons it is from the left of its row. The *Chase* board should be regarded as a cylinder. Thus, A1 is contiguous with A9, B1 is contiguous with B9, and so on.

Chase is a game for two players. One player plays the blue dice, the other player the red dice. To start, the players each roll a die. The player with the highest roll moves first. (If there is a tie, they roll again.) The dice are initially positioned as shown in the diagram. The player who moves first places his dice on the A-row. In our diagrams the person who moves first will be represented by white pieces, and the person who moves second by grey pieces. Each player has one extra die, which starts off the board.

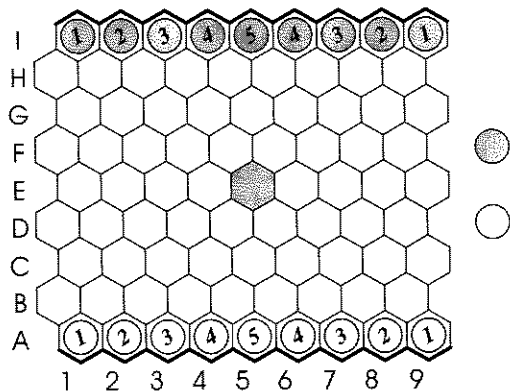


Diagram 1 - Opening setup

Our representation is slightly different from the actual game as the half hexes B1, D1, F1 and H1 have been moved to the left side of

the board to make whole hexes for improved clarity. In addition, numbered circles have been used instead of dice icons. Captured or out-of-play pieces are indicated on the right side of the board—these circles are unnumbered since the value of these dice is indeterminate until they are placed back on the board.

The number uppermost on a die is known as its *speed*. The total speed of all the pieces a player has in play on the board must always equal 25. If this becomes impossible, because a player has four or fewer dice remaining in play (maximum total $4 \times 6 = 24$), then he loses.

The players take turns to move. Each turn a player chooses one of his dice and moves it in a straight line the exact number of hexagons corresponding to its speed. A piece exiting one side of the board reenters the other side of the board as if the board were cylindrical, as explained above. This is called a *wraparound* move. When a die runs into the top or bottom edge of the board before using up the full count of its speed, it *ricochets* off this edge. In other words, it bounces off the edge of the board and heads away from the edge, as if it were a billiard ball. It may not ricochet back along the path it took to reach the board, nor may it ricochet along the edge of the board.

A piece may never pass over another piece, of either color, nor may it pass over the Chamber. A move that would run a piece into another piece or into the Chamber before reaching the exact count of its speed is therefore not allowed. However, a piece may, by exact count of its speed, land on another die or in the Chamber.

When a piece finishes its move by exact count on an enemy piece, the enemy piece is *captured* and removed from the board. Captured pieces are kept by the side of the board until they can reenter play. In the meantime, the opponent now has a count of less than 25 remaining on the board. This must be remedied immediately, before he makes his own move. The count of the die on the board with the lowest speed is increased by the speed of the captured piece. If a player has more than one piece that qualifies as having the lowest speed, he may choose which one to increase. If the piece with the lowest speed is thereby increased to 6, and there are still captured points of speed outstanding, then the next lowest speed piece is chosen to be increased. This process continues until all points of captured speed have been absorbed by the player's dice in play, and their total speed is again 25. If a player is reduced to four or fewer dice, he can never have a speed count of 25, and so loses the game.

When a piece lands by exact count on a friendly piece, this friendly piece is *bumped*. In other words, the bumped piece is moved on into the hexagon that the moving piece would have entered next if it had one more point of speed. If the space entered by the bumped piece is occupied by another friendly piece, this piece is also bumped on one more hexagon in the same direction. This process may be repeated a number of times. If a piece is bumped into a hexagon occupied by an enemy piece, the enemy piece is captured and the turn ends. The opponent must then

increase the speeds of his remaining dice, as described above. A piece on the side of the board may be bumped across to the other side of the board with a wraparound move; a piece on the top or bottom edge of the board may be bumped off this edge in the ricochet direction. A piece may never be bumped into the Chamber—any move that would result in a piece being bumped into the Chamber is not allowed.

Pieces moving into the Chamber by exact count are split into two pieces that exit the Chamber onto the two hexagons adjacent to the original piece's point of entry. This is called a *Chamber move*. For example, if the piece enters the Chamber via E4, the two pieces will exit to F5 and D5; if the piece enters via F5, the two pieces will exit to E4 and F6; and so on. The net result is one new piece is allowed to enter play from off the board for each Chamber move; it is the only way that pieces off the board may reenter play. The two pieces split the original piece's speed between themselves as evenly as possible. So 6 becomes 3+3, 5 becomes 3+2, and so on. When an odd piece splits, the larger of the new pieces exits on the left. (Remember: *Large = Left*.) When a piece with speed 1 makes a Chamber move, it cannot split, so just one piece, also with speed 1, exits to the hexagon on the left. A player may only have a maximum of ten pieces in play. When a player makes a Chamber move and he already has ten pieces in play, then the piece moving simply exits to the hexagon on the left. The pieces exiting the Chamber in a Chamber move may land on friendly or enemy pieces. In such cases the pieces are bumped or captured, as appropriate.

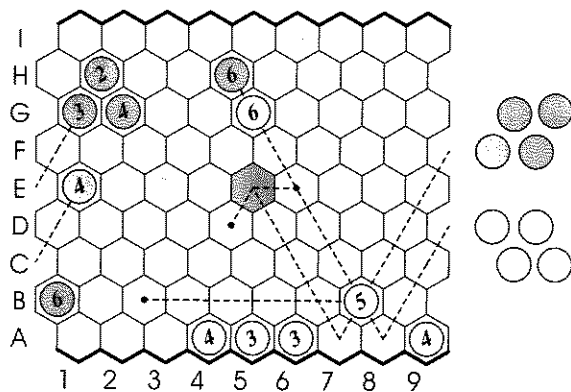


Diagram 2 - Examples of movement.

Lastly, two adjacent pieces of the same color may make an *exchange move*. This is accomplished by transferring points of speed from one piece to the other piece such that the total speed of the two pieces remains the same. For example, a 5 and a 2 may become a 3 and a 4. (Obviously a 1 is not able to donate any points, and neither is a 6 able to accept any points.) Even though both pieces remain in their original positions, this type of exchange still takes an entire turn.

Overall Strategies

Like many piece-capturing games, Chase features three general phases. Early in the game, opponents maneuver their pieces slowly, trying to gain a positional advantage, not unlike deploying an army and stockpiling weapons in preparation for war. At some point attack becomes imminent, there are casualties, and a heated middle game ensues. The endgame is reached when at least one player's forces have been reduced to a few strong survivors. Any pieces that can make Chamber moves during the endgame are very valuable, and are therefore prime targets. Most games end when small residual guerilla forces,

backed by longer range defenders, chase down the few remaining opposing pieces and engage them in *mêlée* combat.

Having many small pieces is usually better than having fewer large pieces. While larger pieces have longer range, the smaller pieces have better movement flexibility that more than makes up for their shorter range. Late in the game larger pieces commonly have no safe move (including staying put), whereas small pieces, with their shorter turning radii, are harder to pin down. Middle-sized pieces such as 3's and 4's are strongest when grouped in clumps, where they may exchange pips freely.

As with many purely abstract games, Chase probably confers a first move advantage. But both players have several possibilities for strong openings that lead to varied games. The literature on Chase is limited, so there is plenty of opportunity for exploration.

Opening Tactics

Positional play is important in Chase, especially during the opening. When jockeying for position, there are several concepts to remember. Three of the most important positional tactics are:

- Attack or block the Chamber and the spaces immediately surrounding it, especially on your opponent's side of the board.
- When protecting exposed pieces, use pieces with speed high enough that they will not be promoted if the exposed piece is captured. This allows for immediate retaliation and also helps set up Chamber moves to regain the captured pieces.
- Keep a clump of two or three medium-sized pieces as a point exchange reservoir/special forces unit.

The initial set-up is a defensive position with regards to the Chamber. Even though neither player can immediately make a Chamber move, both players' 3's and 4's are attacking the six spaces surrounding the Chamber. So, all else being equal, the first player to move into the Chamber risks losing at least one of the newly split pieces on the subsequent move (an apparent tactical advantage for the second player).

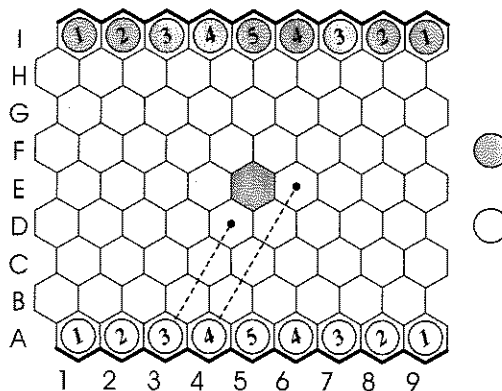


Diagram 3 - 3's and 4's protect spaces around the Chamber

What are the good opening moves, and why? From a defensive standpoint, there are several first moves that do not expose pieces to quick attack. Any move made by the 1's (either forward one space or a wraparound chain-reaction bump in either lateral direction), ducking a 3 behind the Chamber (e.g., A3D5), or an exchange move are considered safe. Opening toward the Chamber with a 2 (e.g., A8C7) is also defensive in that it doubles the attack on spaces surrounding the Chamber. Early in the game, improving position is more important than attacking small exposed pieces, so an undefended 2 is an unlikely target.

Among those mentioned so far, exchanges moves are generally more aggressive than other first moves. Consider 1A6A7 (meaning the 4 on A6 transfers 1 point to the 3 on A7, so the pieces become a 3

and 4, respectively). It prepares A7 for a Chamber move, complete with single defenses at both exit hexes E6 and D5 (guarded by A6 and A4, respectively). This move and the similar opening move 1A8A7 are probably the most aggressive openings possible. The latter is somewhat more defensive in that it does not give up the defense of E4 by A6. Exchanging a point from a 2 creates another 1 on the home row, a small piece far from the action. But this is not necessarily bad! In fact, small pieces in the corner become more useful as the middle game approaches.

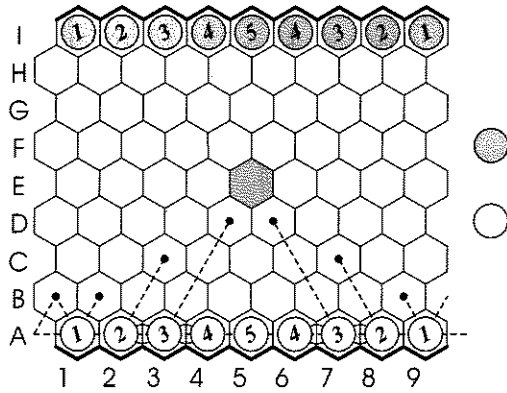


Diagram 4 – Reasonable opening moves

A wraparound chain-reaction bump on the first move is fairly aggressive and achieves many of the same positional goals as the exchanges described above. One disadvantage of the wraparound chain-reaction bump is that only one exit space around the Chamber remains defended. Ducking a couple of 3's behind the Chamber is a guerilla tactic that is somewhat balanced offensively and defensively because the 3's are like snipers hiding behind a tree, ready to pick off undefended passers-by while staying fairly safe. Either of the 1 forward moves are also moderately defensive, but being so far from the action, they do little more than delay positional development.

On the other hand, some first moves should never be made. For example, opening away from the Chamber with a 5 or 3 (e.g., A5F8) leaves a tempting target, especially considering that losing a 5 point piece usually means promoting two pieces instead of one. Faced with such a 5 or 3 opening, the best response is a wraparound chain-reaction bump, attacking with a 3 or 5, respectively. Opening with a 4 in any direction is reckless. The best response to a 4 opening is simply to capture with the available 4, which will then attack another piece (usually either a 1 or 2). These big-piece openings are roughly equivalent to bringing out the Queen too early in Chess, and the early material losses usually lead to defeat.

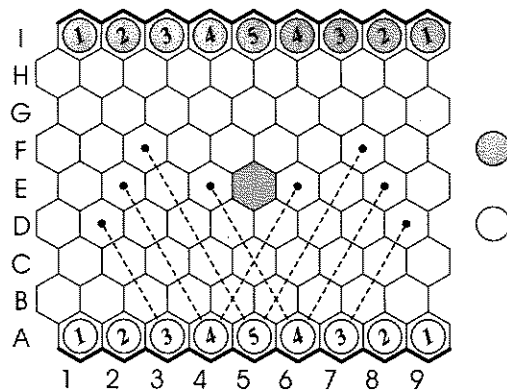


Diagram 5 – Poor opening moves

To summarize opening game tactics, move your pieces into defended positions from which they can capture opposing pieces and/or move into the Chamber.

Middle Game Mayhem

The hazy transition from opening to middle game begins when at least one player can no longer fend off opposing threats. At that point the players stop jockeying for position, and a sequence of attacks ensues. The middle game is all about gaining a material lead and a positional advantage for the endgame. Of those two strategic goals, material advantage is the easier to grasp and will be explored first. Material advantage is achieved by capturing more and larger opposing pieces than are captured by your opponent.

Attack your opponent's larger pieces with your smaller pieces. On a crowded middle-game board 6's, 5's or even 4's are sometimes unable to move, especially as smaller pieces close in around them. Remember that whenever any piece is captured, the points are transferred to the owner's other pieces, beginning with the smallest. Capturing a big piece always creates at least one more big piece. On the other hand, chasing down a small opposing piece is usually unwise, unless the small piece is a direct threat to your own large piece. The potential material cost of attacking a small piece can be more than the material gained by its capture. The diagram shows the result of a foolish move by Grey—trying to chase down a small piece. He has just exchanged 2I5I4. Sure, the move attacks C1 and sets up a follow-up attack against E4, but at what cost? A6 still defends E4, and A1B2 would both defend C1 and block the path for the continuation capture. Better still, White should immediately counter-attack I4 with E4G3, forcing Grey to waste at least one turn correcting the blunder.

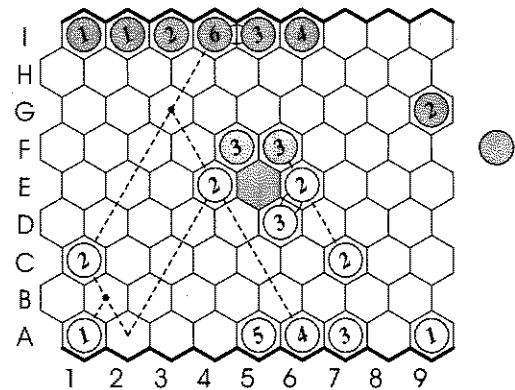


Diagram 6 – Middle game example

Remember the exchange reservoir/special forces unit created in the opening? Now is the time to use it. The basic sequence is exchange, capture, and return. Sometimes this sequence is interrupted by more urgent moves elsewhere, but prioritizing moves is what playing strategy games is all about. In the previous diagram White has a special forces unit near the Chamber. Besides the immediately available bump capture C7E6/E6:F6, a point exchange such as 1E6D6 would allow White to capture the 3 on F6 and to continue around the Chamber to take the 3 on F5. This example shows how easily a centrally located 1 can steamroller over opposing pieces and hints at the importance of breaking up your opponent's guerilla forces before they can act.

Moving into the Chamber increases the number of pieces available; the tactics involved to do so are about position. The dashed lines in the following diagram show approaches to the Chamber. Moving and defending your own pieces along these lines will enable you to make Chamber moves for a material gain.

Conversely, attacking opposing pieces along these lines will prevent your opponent from making Chamber moves to rescue previously-captured pieces. The dotted spaces show the most flexible places from which to attack the Chamber corridors.

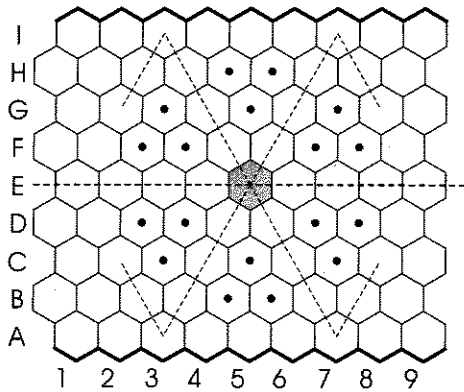


Diagram 7 - Corridors to the Chamber

The rhombus maneuver is an important middle-game positional tactic. If a piece at one obtuse corner of a rhombus attacks a space at the other obtuse corner, moving to either acute corner maintains the attack, as long as the path is not blocked. Rhombus maneuvers are doubly useful when they simultaneously attack and defend or when they are used to set up a fork.

Endgame Tactics

One of the most common complaints about abstract strategy games (although serious game players usually consider it a challenge) is that too many games end in draws because the end games are too hard to figure out. For example, who among us has not felt the frustration of facing a Chess opponent when we have only a Bishop and King remaining and wondered how we allowed ourselves to get into such a predicament? Fortunately, Chase endgames are more straightforward, and consequently, less drawish. The winning condition—to reduce your opponent to four pieces—is usually more easily achieved than capturing a particular opposing royal piece. After all, with the exception of bump moves, only one piece moves at a time. An opponent cannot indefinitely counter all simultaneous threats by moving only one piece per turn. Also, the mechanism of obligatory promotion upon capture actually helps the winning player throughout the endgame because bigger pieces are easier to pin down than smaller ones.

After the middle game skirmishes have run their courses, usually one player is left with only a few large pieces. This signals the endgame's arrival. The player with the few large pieces tries to move them into position to make further Chamber moves, and the player with more smaller pieces tries to prevent that from happening, isolating and picking off strays in the process.

Some endgame kinks Chase players need to be aware of have to do with the geometry of the board. A piece can get into position for a Chamber move by some combination of ricochets and wraparounds, but for this to work, the piece has to start on the correct rank. 6's must start on ranks A, C, E, G or I; 5's must start on ranks B, C, E, G or H; and 4's must start on ranks A, E or I. Note that, contrary to expectations, 5's are actually more flexible in the end game than 4's! Since 6's and 3's share a common factor with 9 (the board order), these pieces must also be in certain columns before any amount of wrapping around or ricocheting will bring them into a Chamber corridor at the correct distance. Mapping the various positions from which unobstructed 6's and 3's may enter the Chamber is left as an exercise for the reader.

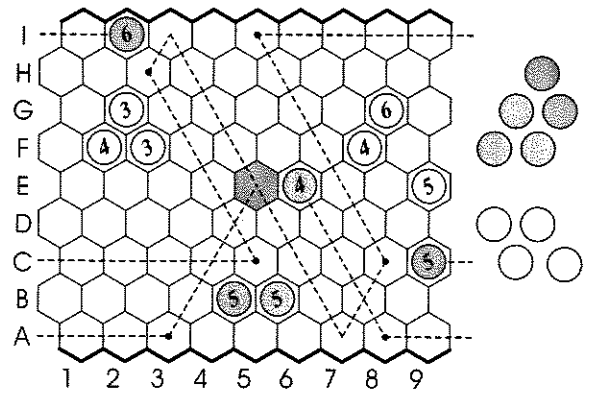
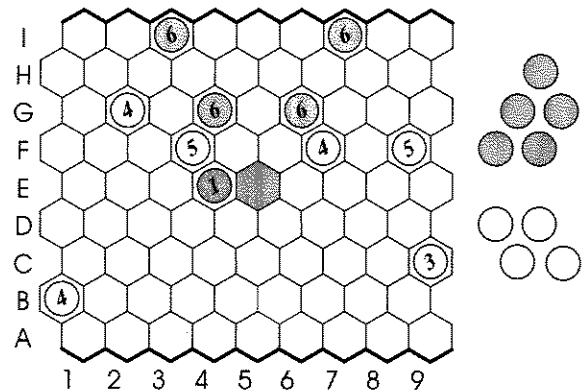


Diagram 8 - Routes to reach the Chamber

For the player entering the endgame with only a few large pieces, surviving amidst these limitations will be difficult indeed. At the very least, survival will require bumps and/or point exchanges. But even these steal precious moves and allow the more flexible opponent more time to attack. Obviously, a player entering the endgame with a special forces unit intact has a huge advantage and can prioritize targets based upon their likelihood of moving into position for Chamber moves. Sometimes unpinned and separated 6's, 4's and 3's may safely be ignored if their positions are benign.

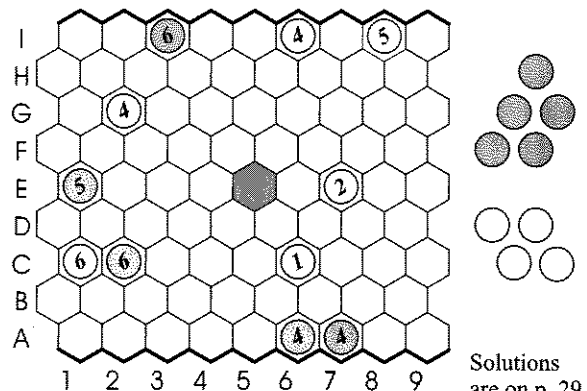
Problems

In the first problem White can force a win in three moves, no matter where Grey moves first.



Problem 1

In the second problem White is to move and win as quickly as possible.

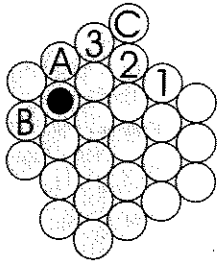


Problem 2

Solutions are on p. 29

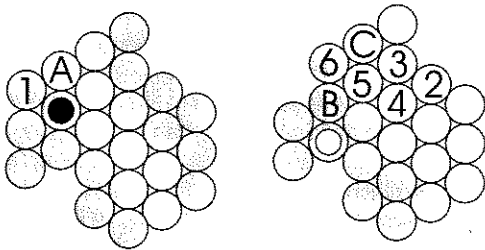
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Solution to Puzzle 1



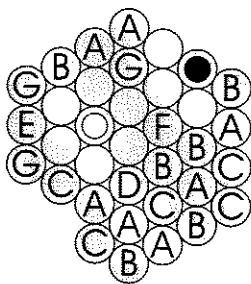
- Move 1: Place a ball at A, and remove the disc marked 1.
- Move 2: Place a ball at B, and remove the disc marked 2.
- Move 3: Place a white ball at C, and remove the disc marked 3, isolating 1 white ball.

Solution to Puzzle 2



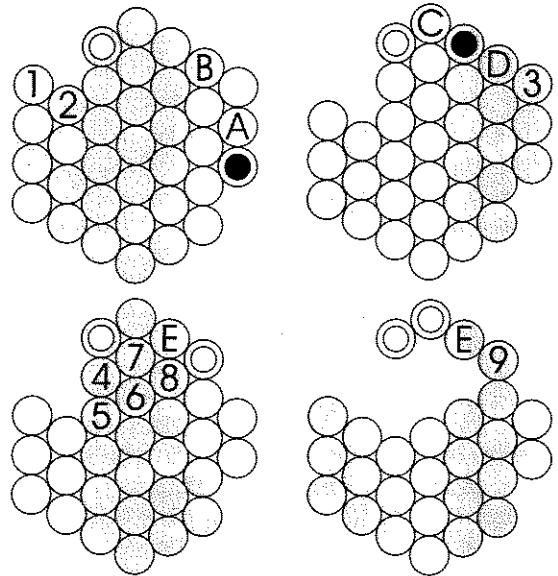
- Move 1: Place a white ball at A, and remove the disc marked 1.
- Move 2: Place a ball at B, and remove the disc marked 2.
- Move 3: Place a ball at C, and remove the disc marked 3.
- Move 4: Place a ball at C, and remove the disc marked 4.
- Move 5: Place a ball at C, and remove the disc marked 5.
- Move 6: Place a white ball at C, and remove the disc marked 6, isolating 2 white balls.

Solution to Puzzle 3



If you choose the color of the third ball and the disc to remove with care, here is what your opponent must give you to capture two white balls:
 A – 3 balls; B – 3 balls, including 1 white; C – 4 balls; D – As B, or (worse for you) opponent can trade 2 balls for a white, leaving you in much the same predicament; E – 4 balls, including 1 white—or opponent can trade a white for a white, leaving much the same position; F – 4 balls, including 1 white; G – 5 balls.
 Playing in positions marked B, C, E, F, or G gives you at least a chance to win when you regain *sente*, by isolating 2 balls; obviously, after a 5-ball sequence, the board will be smallest, maximizing your chances of an instant win. Playing a ball in the positions marked A or D should be fatal against an adept opponent.

Solution to Puzzle 4



- Move 1: Place a ball at A, and remove the disc marked 1.
- Move 2: Place a ball at B, and remove the disc marked 2.
- Move 3: Place a white ball at C, and remove the disc marked 3. Note: placing a white ball at D instead is fatal. Try it!
- Move 4: Place a ball at E, and remove the disc marked 4.
- Move 5: Place a ball at E, and remove the disc marked 5.
- Move 6: Place a ball at E, and remove the disc marked 6.
- Move 7: Place a ball at E, and remove the disc marked 7.
- Move 8: Place a ball at E, and remove the disc marked 8.
- Move 9: Place a white ball at E, and remove the disc marked 9.



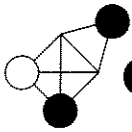
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In conclusion, Chase is a delightful game for which Tom Kruszewski should be recognized. And even though its published life was short, Chase will live on in memory. ■

References and Acknowledgments

- Tom Kruszewski, "Chase" – The Challenging Game of Changing Strategies," published by TSR, Inc., 1030XXX1901, copyright © 1985, 1987.
- Cameron Browne, personal communications, 2001. Cameron Browne's "FIG2.EXE" Hex diagram software, copyright © 2000, was used for the diagrams in this article.
- Steffan O'Sullivan, "Chase," *SOS' Gameviews*, <http://www.io.com/~sos/bc/chase.html>, review copyright © 1997.
- Stephen Bloch, "Math 472 Senior Project," <http://www.adelphi.edu/~kp751f92/notes.html>, Spring, 1996 Notes.
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Game Tournaments



The two 2001 tournaments are coming to a close:

Onyx

The Onyx tournament was tied between Larry Back, Oriol Comas i Coma and Kerry Handscomb. A final round is being played between these three contestants. There were six entrants.

Kyoto Shogi

The Kyoto Shogi tournament was won by Jochen Drechsler, with a perfect score. Mike Sandeman came second. As a small prize, Jochen's subscription to *Abstract Games* will be extended by two issues. There were seven entrants.

Although small, both tournaments were hard-fought. We hope to showcase the best Onyx and Kyoto Shogi games in a future issue.

In 2002 we will hold tournaments in **Onyx** (rules in *AG4*) and **Croda** (rules in this issue). Entry to either of the tournaments is free to subscribers of *Abstract Games* and is US\$5.00 for non-subscribers. Play is to be conducted by e-mail. Players are expected to reply to a move within one week. The organization of the tournaments will depend on the number of entries, but the maximum number of games played concurrently by a player in either of these tournaments will not exceed six. The deadline for entry is 15 March, 2002. Any disputes will be arbitrated by *AG*.

Entries should be e-mailed to conniekerry@telus.net.

The winners will receive a small prize.

Solutions

Solutions to Chase Problems

Problem 1. Obviously, all of Grey's pieces except E4 are pinned, so move choices are limited. Upon first glance E4:F4(C9=6/B1=6) looks tempting, but White can simply respond with B1:F4 (via a ricochet at A1) for the win. So Grey has to move elsewhere. Grey's best chance of escape is to somehow get E4 to G5, and either bump or exchange pips with one of the 6's at either G4 or G6 and, with luck, attack G2. So the best move for Grey is E4F5. White could respond with F4G1 (via a ricochet at I2). This would leave F9:F5 (via a wraparound) on the next move if Grey does not move it out of the way; also it creates a guerilla force which can exchange I G1 G2 to threaten G1:G6 on the following move. But since Grey already plans to move F5G5, the capture threat is a moot point. Worse, no matter what sort of pip exchange between G1 and G2 White devises, Grey can counter with bumps such as G5G6/G6G7 and/or pip exchanges that successfully defend G6 against any attack. A similar, although somewhat less elegant response would be C9F2 followed by a pip exchange, but neither of these responses prevents Grey from using the 1 on G5 effectively. Finding a move that does so is essential for White. Notice that C9 and B1 are adjacent. The pip exchange 1B1C9 sets up C9G7 followed by G2G7/G7G6 for the win. This sequence is unstoppable, even by G5G6/G6G7(B1=6/F7=5) because the 4 at G2 need not promote. The complete solution is: 1...E4F5, 2.1B1C9 F5G5, 3.C9G7 G5G6/G6G7(B1=6/F7=5), 4.G2:G7

Problem 2. This is a trick problem, just for fun. Note that White's pip total is only 22. This means that Grey has just captured a 3 somewhere, so now White needs to promote C6=4 before making a move. This fortunate promotion, the result of a blunder by Grey, leaves c6:C2 (or C6C1/C1:C2) for the immediate win.

Solution to Bashne Problem

1.h6g7 f8:h6, 2.f4g5 h6:f4:b8(or c7 or d6), 3.f2g3 b8:h2, 4.c3b4 c5:a3, 5.d4c5 b6:d4:f2, 6.e3:g1 a3b2, 7.h8:a1 wins.

Solution to Take the Brain Puzzle

47 positions: a1a3, a1a4, a1a5, a1a7, a1b2, a1b3, a1b4, a1b5, a1b6, a1c1, a1c2, a1c3, a1c4, a1c5, a1c6, a1d2, a1d4, a1d5, a1e3, a1e4, a1e6, a2a4, a2a6, a2b2, a2b3, a2b4, a2c2, a2c4, a2c5, a2d3, a2d4, a2d5, a3a5, a3c3, a3c4, d3c3, d3d5, d3e3, d3e4, f4c3, f4c5, f4c6, f4d4, f4d5, f4e3, f4e4, f4e6.

Solution to Lines of Action Puzzle

1.f4f5. This quiet move threatens h2:e5, h4:d4, and the strong h7e4. White begins his assault on the blockade.

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