A Brief Summary of the Rules of Chess

for the Intelligent Neophyte

CHESS is one of the world's oldest and most popular board games. Its longevity and popularity can probably be attributed to a number of advantages offered by the game: It requires no special equipment to play; the rules are simple and understandable even to young children; there is no element of chance in the game (that is, the outcome depends exclusively on the relative skills of the players); and the number of possible games in chess is so astronomically high that it provides an extraordinarily broad range of challenge and entertainment for all players, both young and old, from the first-time novice to the seasoned *grandmaster* of chess.

This guide explains the basics of the game, and provides you with enough information to allow you to begin playing chess yourself. It also describes chess notation briefly, and offers information on playing the game against computers (since a human opponent of suitably-matched skill level and interest may not always be easy to find).

The Basics

Chess is a game for two players. It is played using a simple game board and a number of special playing pieces. You and your opponent take turns moving pieces around the board to play the game, according to specific rules of movement for each piece. The object of the game is to trap one of your opponent's playing pieces, called the *king,* such that it cannot escape capture.

The actual form taken by the game board and the playing pieces is virtually irrelevant in chess, as long as they are recognizable. Thus, chess can be played with simple or elaborate chess sets, or with pencil and paper, or on a computer screen, or even from memory (if you have a good memory!).

The Chessboard

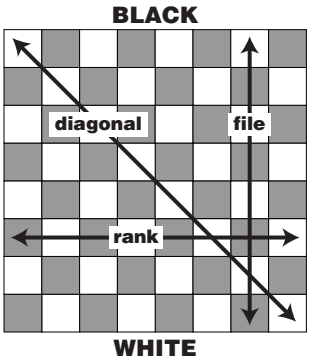


Figure 1

Chess is played using a game board called a *chessboard* (Figure 1). The chessboard is a square flat surface of any convenient size that is divided into an eight-by-eight array of smaller squares of two alternating colors. Any two colors may be used to distinguish the squares, as long as it is possible to clearly tell them apart, but whatever the real colors used, they are usually referred to as *white* and *black* for convenience. You and your opponent typically sit facing each other, at opposite edges of the board.

The horizontal rows of the chessboard, as seen from above and from the position of either player, are called *ranks*, and the vertical columns are called *files*. Straight lines of squares of the same color whose corners touch are called *diagonals*.

The chessboard must always be oriented such that you (and your opponent) have a white square in the rightmost positions of the ranks closest to each of you (as shown in the figure).

Chess Pieces

Upon the chessboard are initially placed 32 *chess pieces* that you and your opponent move about the board during the course of play. In chess, one player is called White, and the other player is called Black, and each player has a set of 16 playing pieces of his own color. See Figure 2 for an schematic illustration of the pieces and their initial arrangement on the board.

Each player's pieces are divided into six types, and

each player begins the game with eight *pawns*, two *rooks*, two *knights*, two *bishops*, one *queen*, and one *king*.

At any given point in the game, a given square on the chessboard may be either occupied by a single chess piece or empty; but no square may be occupied by more than one piece at a time, and no piece may occupy more than one square.

The pieces belonging to you as a player, and in play at any given moment, are often referred to collectively as your *material*.

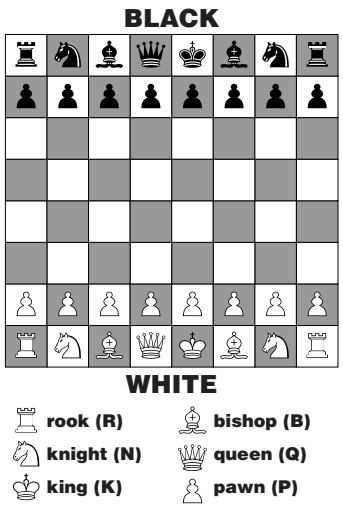


Figure 2

Rules of the Game

To play the game, you and your opponent alternate in moving your chess pieces from square to square on the board, following specific rules for the movement of each type of piece. Each *move* in chess consists of White moving one of her pieces, followed by Black moving one of his pieces. This pattern is followed without exception throughout the game. It follows, then, that White always begins the game.

You may move only one piece per move, and it can only be a piece of your own color. You cannot skip a move, and you cannot move twice in a row.

Attack and Capture

You may not move one of your pieces to a square already occupied by another of your pieces. However, you may move one of your pieces to a square occupied by one of your *opponent's* pieces, if you wish. This latter operation is called *capture,* and when you carry it out, your opponent's captured piece is permanently removed from the board, and it no longer participates in the playing of the game. Your own piece then occupies the square formerly occupied by your opponent's captured piece. Moving to the square and capturing your opponent's piece are accomplished together as a single move.

Any square on the board on which one of your pieces can be placed during your next move of the game is said to be *under attack* by that piece. In consequence, any piece belonging to your opponent that occupies such a square risks being captured by you during a subsequent move, assuming that he takes no action to prevent this.

In general, when one of your pieces is being attacked by your opponent, you are not obligated to take any action to prevent the capture of that piece, if you do not wish to do so. However, there is one exception: If the piece under attack is your king, you are said to be *in check,* and you *must* take action to protect your king from attack during your very next move, or you lose the game (a condition called *checkmate*). Indeed, the whole object of a chess game is to checkmate one's opponent. It follows from this principle that you are also prohibited from making any move that would place your king in check (*i.e.,* expose it to attack).

Blocking Moves

In general, you can move a piece to any unoccupied square (or to any square occupied by an opponent's piece) as long as you follow the rules of movement for the type of piece you are moving, *and* provided that no intervening squares are occupied. In other words, you cannot move, say, a rook five squares forward (even though the rules for a rook allow this) if one of the three intervening squares is occupied by a piece of either color.

The one exception to this rule is the knight, because the knight is allowed to jump over other pieces.

A corollary of this is that attack by another piece is generally blocked by an intervening piece of either color, because no piece (except the knight) can jump over other pieces of either color. Note, however, that the only way to protect a piece against attack by a knight (since it cannot be blocked in this way) is to either move the attacked piece or capture the knight.

Types of Playing Pieces

All of the rules of chess described up to now would make for a pretty dull game in themselves, were it not for the fact that each of the six types of playing pieces is required to move in a slightly different way. The potential complexity of the interaction of pieces due to these constraints provides for almost unlimited variety in the playing of the game.

Below we explain the rules of movement for each of the six types of playing pieces.

Pawns

The pawn is generally considered to be the weakest type of chess piece on the board. A pawn can only move

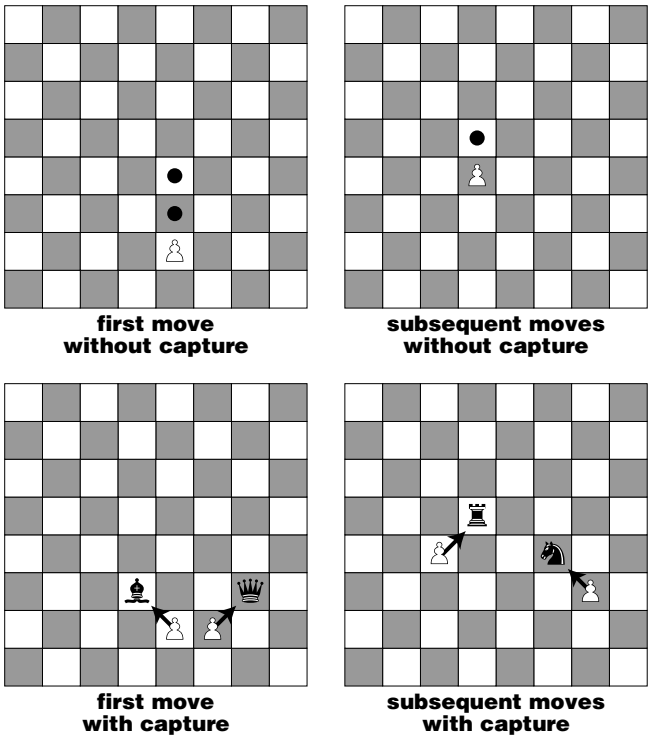


Figure 3

one square directly forward (towards the opposing side of the board) during a move, except on its very first move, during which can move either one or two squares forward. Furthermore, a pawn cannot capture a piece by moving straight forward; it only captures diagonally. See Figure 3 for details. Both of these characteristics are unique to the pawn; all other pieces move in the same way on every move, and capture in the same way that they move.

Pawns are weak most of the time, but they become very strong if they reach the opposite end of the board, because they are then *promoted* to another piece. In other words, if your pawn reaches the last square on the board (that is, the rank closest to your opponent), it is immediately transformed into another piece of your choosing: a queen, a rook, a bishop, or a knight. It thereafter remains transformed for the rest of the game, and has all the powers of its new identity.

Pawns also participate in the special *en passant* move, described later in this guide.

You initially have eight pawns at your disposal at the start of a game, and they are in the front row of your side of the board.

Knights

The knight is a moderately powerful piece that moves in an unusual L-shaped pattern: one square in one direction, and two squares in a perpendicular direction, or *vice versa*. See Figure 4 for details.

The knight is also unique in that it is the only piece that can jump over other pieces. One consequence of this is that you cannot block an attack by a knight on one of your pieces simply by moving another piece between the two. If your king is in check by your opponent's knight, your only option is to move the king or capture the knight; if you cannot do either of these, you are checkmated, no matter how many other pieces are between the knight and your king. This particularity of the knight can be decisive in many situations.

Another consequence of the knight's ability to jump over other pieces is that it is very powerful in the early portion of a game, when a large amount of material on the board still obstructs the movements of other pieces.

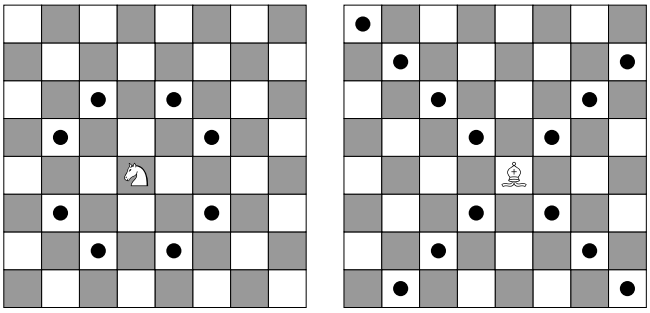


Figure 4

You initially have two knights, in the back rank of your side of the board. As with all pieces that come in pairs (the knight, the bishop, and the rook), it is not uncommon to hear a knight referred to as the "king's knight" (for a knight on the same side of the board initially as the king of the same color) or the "queen's knight" (for a knight on the same side of the board as the queen).

Bishops

The bishop is a moderately powerful piece that can move any number of squares along a diagonal in any direction. See Figure 4 for an illustration.

Bishops and knights are roughly equal in power overall. However, bishops tend to be more important as the board is cleared of material, allowing them to move more freely; whereas knights tend to be more important when the board is crowded and the ability to jump over other pieces is a significant advantage.

You initially have two bishops, in the back rank of your side of the board. Because of the way bishops move, one of your bishops will effectively control only black diagonals, while the other will effectively control white diagonals; this means that one cannot do the work of the other, and this can be significant in some situations. The

other pieces that exist in pairs (the rook and the knight) do not suffer from this constraint.

Rooks

The rook (also called a castle) is a powerful piece that can move any number of squares along a rank or file in any direction. See Figure 5 for an illustration.

Rooks become useful and/or dangerous when entire ranks and/or files are cleared of pieces. Rooks can easily dominate files and ranks in these situations, and since this type of control often proves more decisive than the domination of diagonals offered by bishops, rooks are considered more powerful than bishops (and in fact more powerful than any other piece, except a queen).

The rook also participates in the special *castling* move, described later in this guide.

You initially have two rooks, in each corner of the back rank of your side of the board.

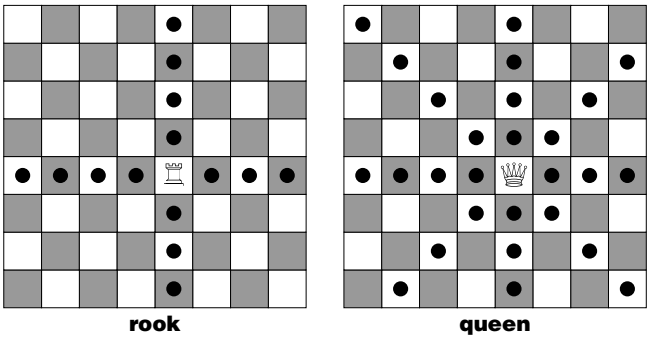


Figure 5

Queen

The queen is the most powerful piece on the chessboard. It can move any number of squares along a rank, file, or diagonal, in any direction. See Figure 5 for an illustration. It essentially combines the advantages of both a bishop and a rook, since it can move in the same way as either of these other pieces.

The greater the extent to which the board is cleared, the more useful and/or dangerous the queen becomes.

You have only one queen, and it initially sits next to the king in the back row of your side of the board.

King

The king is very weak in terms of its ability to move and capture; only the pawn is weaker. However, the king remains the most important piece on the chessboard because any move that attacks the king (thus placing it in check) *and* prevents it from escaping that attack ends the game with checkmate.

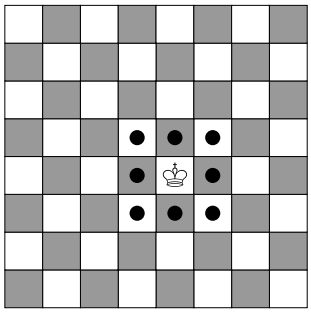


Figure 6

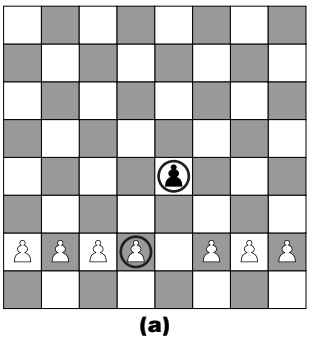
The king can move one square in any direction, provided that the square to which it moves is not under attack. (Other pieces can move to squares under attack, but a king cannot do this because it would place the king in check, and any move by a player that places his own king in check is illegal.) Figure 6 illustrates the legal moves of the king.

The king also participates in *castling*, a special move involving the king and a rook that is described in more detail later.

You have only one king initially, and unlike any other piece, you must keep it throughout the game (it cannot be "sacrificed" as other pieces occasionally are).

Special Moves

Apart from the standard rules governing the moves of each piece, there are two special moves in chess that are optional but frequently used. Both can be used only under very specific circumstances.



En Passant

The special *en passant* move involves two pawns. It is allowed when one pawn moves forward two squares (which it can only do on its first move), passing over a square under attack by a pawn of the opposing color. See Figure 7 for an illustration.

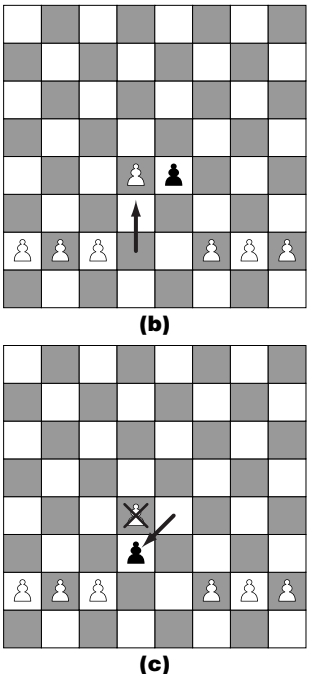


Figure 7

Figure 7 (a) shows the starting position. In Figure 7 (b), White has moved her pawn two squares forward, which she is allowed to do for that pawn's very first move in the game. Note that, in the figure, Black already has a pawn attacking the square over which White's pawn has jumped. In this specific case, and this case only, Black has the right to capture her pawn on his very next move

(only), if he so desires. Exercising this right is called a capture *en passant* of White's pawn. When White's pawn is captured en passant, Black's pawn occupies the square that it would have occupied had her pawn been captured normally. Figure 7 (c) illustrates this.

The main purpose of en passant is to prevent a pawn leaving its original square from "sneaking past" an attacking pawn of the opposite color on its first move. Note that en passant is not a required move; it is optional for the player who is in a position to execute it. However, if the player does choose to execute an en passant, he must do so in his very next move after the move of the pawn creating that opportunity—otherwise the opportunity is forfeited. If two pawns are in a position to execute an en passant, he may execute it with either of them (but not both, of course).

Castling

Castling is a special move that involves one rook and the king, both of the same color. In this move—the only kind of move that allows a player to move more than one of his pieces at a time—the king is moved two squares towards one of the rooks of the same color, and that rook is moved to the other side of the king. See Figure 8 for an illustration of the board before and after castling.

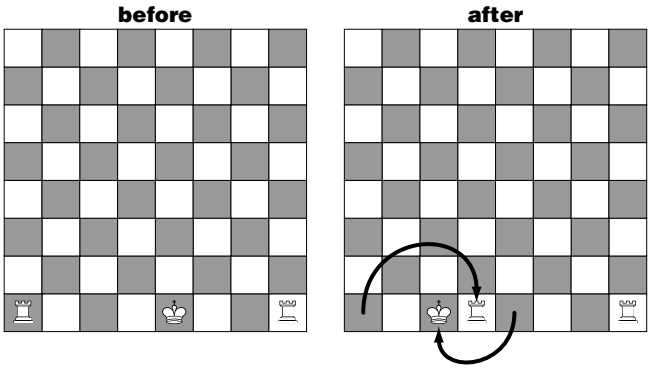


Figure 8

Castling is only legal if certain conditions are met, namely: (1) neither the king nor the rook has moved since the start of the game; (2) all of the squares between the rook and king are unoccupied, and the squares touched by the king during the move are not under attack; and (3) the king is not under attack (that is, the king is not in check).

Castling can be carried out with either the rook nearest the king or the rook farthest from the king, as long as the other conditions are met. Each player can castle no more than once during a game. Castling is always optional. Because one of the conditions for castling is that neither piece be under attack, castling cannot be used to escape check.

The main purpose of castling is to allow a player to substantially increase the protection of his king with a single move, by moving the king to one side and putting a protective, powerful piece (the rook) in front of it.

Ending the Game

Ideally, the chess game ends when you trap your opponent's king, such that he cannot avoid capture. This is checkmate. However, checkmate isn't always guaranteed, especially between players that are closely matched in skill, and there are several other ways in which a game can end.

A *draw* is an end to a game that recognizes neither a winner nor a loser. Either player may offer a draw to the other at any time; if the other player accepts, the game ends, and the score is technically ½-½; that is, nobody wins, and nobody loses. The player who is offered a draw need not accept, and can insist on continuing to play the game. However, there are also forced draws, in which the game cannot be won by either side, usually due to a lack of material—for example, a lone king cannot win the game against another lone king. A forced draw ends the game as soon as the players recognize that there is no longer any way for either side to win.

A *stalemate* occurs when a player cannot make any legal move, and yet he is not in check. The score of a stalemate is the same as that of a draw; that is, there is no winner or loser.

Finally, either player may *resign* at any time. The player who resigns loses the game to his opponent. His opponent cannot refuse the resignation.

Several additional rules are commonly observed in playing chess, even though they are not essential to playing the game. The *50-move rule* requires that any game in which 50 consecutive moves are made without the movement of any pawn and without the capture of any piece must be declared a draw. This rule prevents games for continuing interminably when neither side can win (either through a lack of skill, or through a lack of material). The *third-repetition* rule requires that any game in which exactly the same position of pieces occurs three times in a row must be declared a draw. The purpose of this rule is similar to that of the 50-move rule.

Tournament Rules

In formal chess matches and tournaments, additional rules apply, particularly with respect to things like time

limits for making moves (to prevent players from contemplating a move for hours at a time), guidelines on actually moving physical chess pieces (to prevent players from attempting to take back poor moves), and so on. These extra rules are not usually applied by players engaged in casual games, so we will not describe them in detail here. The World Chess Federation (FIDE) publishes a handbook describing all the tournament rules in detail, if you are really interested in learning them all, but you don't need them just to play the game itself.

Playing Chess Against Computers

Until very recently, only human beings could play chess. In the past two decades or so, however, computers technology has progressed to a point such that computers can now play chess very well indeed—so well, in fact, that they can beat grandmasters (sometimes).

The interest of computer chess for a novice player is that it makes it possible for him to readily find and play against a highly skilled opponent. Before computers, finding another player of matching skill could be problematic, if no source of players (such as a community chess club) were readily available. With computer chess, this becomes practical, because computers allow their play levels to be adjusted to fit their human opponents (indeed, some are capable of analyzing the play of a human opponent and adjusting their own play level to match, thus ensuring an entertaining and challenging game for the human player on every occasion).

One drawback of playing chess against a computer is that even simple chess computers and programs today may be far stronger than the average chess player, so unless the computer allows a handicap or skill level to be set manually, it will invariably beat a typical chess player. A second drawback is that there is no psychological aspect to games against a computer—it is impossible to confuse or distract a computer, whereas it may be possible to destabilize and weaken a human opponent using unusual tactics in game play even if the actual moves made in the game are not strictly the ideal moves as a computer might see them.

Playing chess against a computer should not be confused with playing chess against other people *using* a computer, which is described in the next section.

Chess Computers vs. Chess Programs

A *chess computer* is a computer that does nothing but play chess. It usually doesn't even look like a computer; instead, it looks like a chessboard (with the computer hidden under the board, usually). The chessboard is used with special chess pieces that usually signal to the computer what moves its human opponent is making, using magnets on the bottoms of the pieces, or buttons, or any one of several other techniques. The computer indicates its move on a screen, or using indicator lights, and expects its human opponent to actually move the pieces for it (a few chess computers have actually had a mechanical arm that would move the pieces for the computer).

Chess computers are not as popular as they once were, with the rise of chess programs for PCs, but there still exists a variety of chess computers to choose from. Virtually all of them play a very strong game of chess (if they are used at their highest playing levels).

Chess programs are software products that run on an ordinary personal computer, usually a PC running under Microsoft® Windows® (although they are also available for just about any other type of computer). Chess programs can be further divided into *consumer* and *professional* programs. Consumer chess programs, such as the popular ChessMaster,® feature elaborate and attractive graphics, extensive tutoring, and many "ease-of-use" features. Professional chess programs, such as Fritz,™ emphasize the game alone, and include features likely to interest serious players of the game (including tournament players), without the elaborate graphics or sound effects. Both consumer and professional chess programs play at a level comparable to that of a grandmaster, so the choice for novice players is mainly one of personal preference. Like chess computers, chess programs allow the human player to set the play level of the machine to match his own skill.

Internet Chess

Internet chess is chess played between human beings over the Internet. With Internet chess, computers simply serve to connect the human players together (who may be thousands of miles apart geographically), but the computers themselves do not participate in the game. Typically each player uses a special chess client program on his computer to connect to a chess server on the Internet, which then sets up matches in real time between players. Matches may be started as players challenge one another, or the server may start matches automatically whenever certain criteria set by each player are met. For example, players may issue an open invitation to other players of a certain playing level, or for matches of a certain duration.

Internet chess allows human chess players to find other human chess players with whom to play the game, even if they live in an area where finding people with whom to play chess in person might be difficult. With Internet chess, players all over the world are equally accessible, and it is often possible to find worthy opponents of the same skill level 24 hours a day, and seven days a week.

The actual protocol used by each player's computer to communicate with the other player's computer in most cases is the Internet Chess Protocol, which itself is a modification of the traditional, standard Internet Telnet protocol. However, the players need not know anything about this protocol in order to play. Each player simply runs a special program on his own computer, and sees a chessboard on his own computer, and as he moves, the other player sees the move instantly, and vice versa. Many additional features can be provided with the chess program, such as time clocks, chat boxes so that players can communicate as they play (if they wish), lists of players currently online and their status (playing, idle, open to challenges, etc.), and so on.

A computer on the Internet, the chess server, serves as a mediator and referee for players and matches. It usually helps with finding appropriate opponents and overseeing matches (watching time clocks and so on). Chess servers are found on Internet chess networks, of which there are many. One of the best known chess networks with paid membership is the Internet Chess Club (http://www.chessclub.com), and one of the best known free chess networks is the Free Internet Chess Server (http://www.freechess.org), but there are several others, including Chess Net and Chess Any Time.

Some forms of Internet chess are specific to a proprietary environment. For example, social networks such as Facebook provide applications that allow individuals to play chess over the Internet. These Internet chess programs and applications differ in their details from one environment to another, but the basic idea of allowing people to play chess over the Internet across vast distances is retained.

Internet chess based on the aforementioned ICS protocol occurs in real time, with players watching each others moves and often with time constraints just as in games played in person. However, other, more proprietary Internet chess programs and applications may allow for deferred play, with players sending moves automatically via e-mail, SMS messages, or special chat messages to each other over a period of hours or days.

Chess Notation

Chess notation is worth mentioning in this guide because most novice players will eventually pick up a book on chess and wish to understand the games that are invariably documented in such books.

Notation of chess games and moves follows a fairly consistent convention. See Figure 9 for an example.

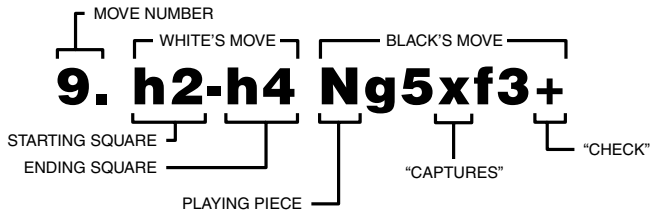


Figure 9

In plain English, the notation illustration in Figure 9 means: "In move 9, White moves a pawn from square h2 to square h4, and Black responds by moving a knight from g5 to f3, capturing the piece on that square and putting White in check." Obviously, the conventionalized notation saves space.

Notation of chess moves always follows the pattern *move-number, White's-move, Black's-move,* in that order. If the chess piece being moved is a pawn, only the starting and ending squares are noted; if it is any other piece, the starting and ending squares are preceding by an abbreviation for the piece: *K* for the king, *Q* for the queen, *B* for a bishop, *N* for a knight (because *K* would conflict with the abbreviation for a king), and *R* for a rook.

When the starting and ending squares are separated by a hyphen '-', the move is an ordinary move (not a capture). When the move involves a capture, the starting and ending squares are separated by an *x*.

If the starting square can be inferred from the arrangement of the board, sometimes only the ending square is specified, *e.g.,* "e4" by itself as the first White move of the game means "pawn to e4" (it is not necessary to specify the starting square of e2, because the pawn on e2 is the only pawn that can legally make this move as the first move of a game).

A special character following the move of White or Black may be written to indicate a result. A plus sign '+' following a move means that the move puts the opponent in check; a pound sign '#' or two plus signs '++' following a move indicates that it delivers checkmate (and ends the game). An equal sign '=' is sometimes

used to indicate a draw (forced, or offered and accepted).

A few extra signs may be used to make comments on a move. An exclamation point is sometimes used to mean "good move!" and two exclamation points to mean "great move!" Similarly, a question mark following a move means "poor move," and two question marks mean "really bad move!" The combination "-+" means "this gives an advantage to Black," and the combination "+-" means "this gives an advantage to White."

At the end of a game, the score is noted: 1-0 means that White has won, 0-1 means that Black has won, and ½-½ indicates a draw.

Finally, the castling move has a special notation: O-O for a castle on the king's side, and O-O-O for a castle on the queen's side. The en passant move is noted as "e.p." after the move (although this is often omitted, as the square of arrival usually makes it obvious).

Conclusion

The information in this summary will enable you to begin playing chess on your own, against other human beings, or against a computer. Should your interest in the game increase beyond that of simple entertainment, there are thousands of books on the game, most available in your local library or chess store; additionally, most communities of significant size have one or more active chess clubs. Finally, there are many resources on the World Wide Web, including the home site of the World Chess Federation, at **http://www.fide.org**, which contains links to many other chess-related sites.