**Chess Board**

**Chess board specifications:**

* The board has 8x8 dimensions.
* The left vertical side of the board is number {1, 2, 3, 4, 5, 6, 7, 8}
* The bottom horizontal side of the board is named {a, b, c, d, e, f, g, h}
* The player with the white pieces always moves first.
* Ways to end a game of chess: by checkmate, with a draw, by resignation, by forfeit on time.

**Chess board rules:**

* Pieces cannot move through other pieces (though the knight can jump over other pieces).
* And they can never move onto a square with one of their own pieces.
* They can be moved to take the place of an opponent's piece which is then captured.

**The Special Rules of Chess:**

**How To Promote a Pawn in Chess**

* A pawn may be promoted to a knight, bishop, rook, or queen.
* Does not utilize captured pieces.
* Happens when a pawn piece successful reaches the end of the board from either side depending on the players’ side.
* Only pawns may be promoted.

**How To Do "En Passant"(in passing) In Chess**

* If a pawn moves out two squares on its first move, and by doing so lands to the side of an opponent's pawn.
* That other pawn has the option of capturing the first pawn as it passes by.
* And moves one square behind the captured square.
* This special move must be done immediately after the first pawn has moved past, otherwise the option to capture it is no longer available.

**How To Castle In Chess**

* Allows you to get your king to safety (hopefully) and get your rook out of the corner and into the game.
* On a player's turn he may move his king two squares over to one side and then move the rook from that side's corner to right next to the king on the opposite side.

**Required conditions:**

* + it must be that king's very first move.
  + it must be that rook's very first move.
  + there cannot be any pieces between the king and rook to move.
  + the king may not be in check or pass through check.

Notice that when you castle one direction the king is closer to the side of the board. That is called castling "**kingside**". Castling to the other side, through where the queen sat, is called castling "**queenside**". Regardless of which side, the king always moves only two squares when castling.

**There are only three ways a king can get out of check:**

* move out of the way (though he cannot castle!)
* block the check with another piece or
* capture the piece threatening the king.
* If a king cannot escape checkmate then the game is over. Customarily the king is not captured or removed from the board, the game is simply declared over.
* Checkmate can happen in the early stages of the game if one of the players does not act carefully.

**How to draw a chess game:**

Occasionally chess games do not end with a winner, but with a draw. There are 5 reasons why a chess game may end in a draw:

* The position reaches a [stalemate](https://www.chess.com/article/view/stalemate-chess) where it is one player's turn to move, but his king is NOT in check and yet he does not have another legal move.
* The players may simply agree to a draw and stop playing.
* There are not enough pieces on the board to force a checkmate (example: a king and a bishop vs. a king).
* A player declares a draw if the same exact position is repeated three times (though not necessarily three times in a row).
* Fifty consecutive moves have been played where neither player has moved a pawn or captured a piece.

**Chess Pieces**

**Types of chess pieces:**

There are six different types of chess pieces, each player side starts with common 16 pieces: 8 pawns, two bishops, two knights, two rooks, one queen, and one king.

**How the pieces move:**

* King - Moves one square in any direction.
* Queen - Moves any number of squares diagonally, horizontally, or vertically.
* Rook - Moves any number of squares horizontally or vertically.
* Bishop - Moves any number of squares diagonally.
* Knight - Moves in an ‘L-shape,’ two squares in a straight direction, and then one square perpendicular to that.
* Pawn - Moves one square forward, but on its first move, it can move two squares forward. It captures diagonally one square forward.

**About each piece:**

**Pawn:**

**Initial conditions:**

* Each side starts with eight pawns.
* White's pawns are on the second rank, while Black's pawns are located on the seventh rank.
* Worth 1 point.

**Moves:**

* If it is a pawn's first move, it can move forward one or two squares.
* If a pawn has already moved, then it can move forward just one square at a time.

**Attack:**

* It attacks (or captures) each square diagonally to the left or right.

**The Bishop:**

**Initial conditions:**

* Each side starts with two bishops, one on a light square and one on a dark square.
* White's bishops are located on c1 and f1, while Black's bishops are located on c8 and f8.
* Worth 3 points.

**Moves:**

* Can move diagonally as many squares as it likes if it is not blocked by its own pieces or an occupied square.
* Moves like an "X" shape.

**Attack:**

* It captures an enemy piece by moving to the occupied square where the piece is located along the “X” movement.

**The Knight:**

**Initial conditions:**

* Each side starts with two knights—a king's knight and a queen's knight.
* White's knights are located on b1 and g1, while Black's knights are located on b8 and g8.
* Worth 3 points.

**Moves:**

* It moves one square left or right horizontally and then two squares up or down vertically, OR it moves two squares left or right horizontally and then one square up or down vertically.
* Can jump over another piece.
* Moves like an "L" shape.

**Attack:**

* It captures an enemy piece that it lands on only.

**The Rook:**

**Initial conditions:**

* Each side starts with two rooks, one on the queenside and one on the kingside.
* All four rooks are in the corners of the board.
* White's rooks start the game on a1 and h1, while Black's rooks are located on a8 and h8.
* Worth 5 points.

**Moves:**

* It can move as many squares as it likes left or right horizontally, or as many squares as it likes up or down vertically (if it isn't blocked by other pieces).
* Can jump over another piece.
* Moves like an "+" sign.

**Attack:**

* It captures an enemy piece that it lands on.

**The King:**

**Initial conditions:**

* Most important chess piece.
* Each side starts with one king.
* White's king is located on e1, while Black's king starts on e8.
* Worth 9 points.

**Moves:**

* It can only move (or capture) one square in any direction.
* It can also move as many squares as it likes diagonally (like a bishop).
* it moves like a rook and a bishop combined.

**Attack:**

* It can capture a piece within of it radius one square in any direction.
* When a king is attacked, it is called "check”.

**The Queen:**

**Initial conditions:**

* Most powerful chess piece.
* Each side starts with one queen.
* The white queen is located on d1, while the black queen is located on d8.
* Worth 9 points.

**Moves:**

* It can move as many squares as it likes left or right horizontally, or as many squares as it likes up or down vertically (like a rook).
* It can also move as many squares as it likes diagonally (like a bishop).
* it moves like a rook and a bishop combined.

**Attack:**

* rook and a bishop combined attacks.