

## **Algebraic Chess Notation**

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Below we describe the aspects of the notation relevant to the HW2 problem. There is a bit more to chess notation in general (see game.txt), but you do not have to identify / match it in the text file.

### **1. Naming the squares**

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Each square of the chessboard is identified by a unique coordinate pair: a letter and a number. The vertical column of squares (called files) from White's left (the queenside) to his right (the kingside) are labeled a through h. The horizontal rows of squares (called ranks) are numbered 1 to 8 starting from White's side of the board. Thus each square has a unique identification of file letter followed by rank number. (For example, White's king starts the game on square e1; Black's knight on b8 can move to open squares a6 or c6.)

### **2. Naming the pieces**

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Each piece type (other than pawns) is identified by an uppercase letter, usually the first letter in the name of the piece in whatever language is spoken by the player recording. English-speaking players use the letter K for king, Q for queen, R for rook, B for bishop, and N for knight (since K is already used).

Pawns are not identified by uppercase letter, but rather by the absence of one. Distinguishing between pawns is not necessary for recording moves, since only one pawn can move to a given square. (Pawn captures are an exception and indicated differently as explained below.)

### **3. Notation for moves**

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Each move of a piece is indicated by the piece's uppercase letter, plus the coordinate of the destination square. For example, Be5 (move a bishop to e5), Nf3 (move a knight to f3), c5 (move a pawn to c5—no piece letter in the case of pawn moves).

### **4. Notation for captures**

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When a piece makes a capture, an "x" is inserted immediately before the destination square. For example, Bxe5 (bishop captures the piece on e5). When a pawn makes a capture, the file from which the pawn departed is used to identify the pawn. For example, exd5 (pawn on the e-file captures the piece on d5).

## 5. Disambiguating moves

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When two (or more) identical pieces can move to the same square, the moving piece is uniquely identified by specifying the piece's letter, followed by file/rank of departure. For example, with knights on g1 and d2, either of which might move to f3, the move is specified as Ngf3 or Ndf3, as appropriate. With knights on g5 and g1, the moves are N5f3 or N1f3. As above, an "x" can be inserted to indicate a capture, for example: N5xf3.

## 6. Check

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A move that places the opponent's king in check usually has the symbol "+" appended. For example Nd6+ (other examples: Nxd6+ or Nfd6+ or Nfxd6+) means the king is in check after the move Nd6 is played.

## 7. Annotation symbols

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Though not technically a part of algebraic notation, the following are some common symbols frequently used by annotators to give evaluative comment on a move:

- ! (a particularly good—and usually surprising—move)
- !! (an excellent move)
- ? (a bad move)
- ?? (a blunder)
- !? (an interesting move that may not be best)
- ?! (a dubious move – one which may turn out to be bad)

The symbol chosen is simply appended to the end of the move notation, for example: 1.d4 e5?!

## 8. Numbering Moves

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Moves are sometimes preceded by a digit to indicate the move number. White's moves can appear as 1.Nf3 or 10. Nd3. Black's moves can appear with three dots: 17...c5 or 10...Nb7

## 9. For more details see:

[http://en.wikipedia.org/wiki/Algebraic\\_notation\\_%28chess%29](http://en.wikipedia.org/wiki/Algebraic_notation_%28chess%29)