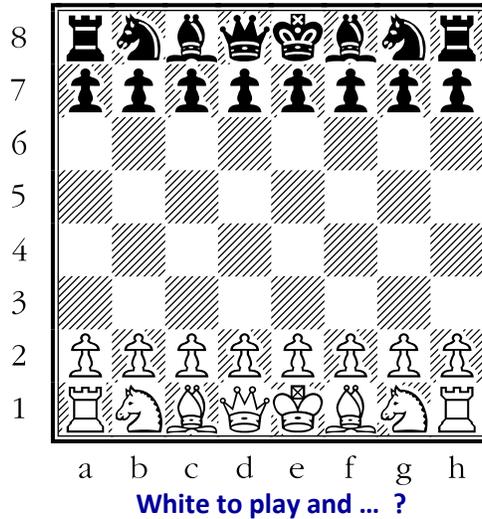


# Fundamentals of Chess: The Pieces



*Not even Alpha Zero has a definitive answer to this question.*

In [Fundamentals of Chess: The Board](#) we looked at the board and what it could tell us. In this article we will consider our pieces and draw some conclusions.

Of course *everyone* knows how strong the pieces are; every beginner book starts out with the moves and tells you a queen is 10 points, etc. etc. etc. This type of numerical calculation for the value of the pieces (based upon a pawn being 1) was first done in the 1800's.

But that self-same book, just a little bit later, will tell you that these numbers are just a guideline. It will say that the actual value of a piece will depend upon the position. It is the master that will "know when" the values are different, and his judgment is what counts.

Our goal here is to understand the how and why of our pieces strength.

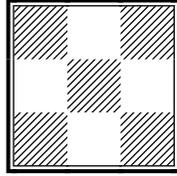
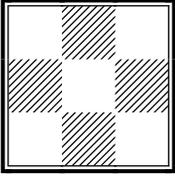
First we will simply order the pieces in terms of importance and then later we will try to quantify their value. The list isn't controversial (in my opinion).

- Level 1  The king must live, so clearly it has to be at the top.
- Level 2  The queen is clearly the most mobile piece
- Level 3  The rook can give mate by itself, needs open lines.
- Level 4  The bishop is stuck on a color. The knight always switches.
- Level 5  The pawn is the key for open lines, and if it can promote...

Naturally one wishes to know: Bishop or Knight, which is better? Entire books have been written regarding this debate. For now let us say that neither by itself with the help of his king can deliver mate. Two bishops can deliver mate, Bishop + Knight can mate, two Knights cannot mate and these facts makes me lean immediately to a bishop being slightly better than a knight.

## We shall start with the Boxing Ring

### The 3x3: The Boxing Ring



As you can see from the above there are two types of 3x3 depending upon the central square color.

It's time to play. In turn put a piece in the ring and see how "strong" they are with respect to how many squares they can control. Clearly the king and queen dominate. If you slightly change the scenario and place the pieces outside the boxing ring while checking their influence upon the ring squares then the knight, and king drop out.

Thus we can say we have two "types of pieces":

**Long Range** [♔, ♕, ♖] or **Short Range** [♔, ♞, ♚]

The queen can go both ways, but notice that some long time chess 'fables':

- **Queen + Knight are better than Queen and bishop.**
- **Rook + Bishop are better than Rook + Knight**
- **In the Endgame the King is a strong piece.**
- **The rook needs a three square checking distance from the King.**

Could all be 'explained' by looking at studying the boxing ring and our pieces.

For example the checking distance shows that when a king battles a rook, the king wants to have both pieces inside the ring where it can dominate. Naturally the rook can be as far as possible and still control the squares just as well.

Are there other 'fables' that you can think of for us to consider?

And just recently I noticed yet another concept, I long "knew", explained in an annotation to a game in a complicated way that just falls out if I had thought of it in this context. If you have a white knight at g3 (for example) and you make that the bottom middle square of your boxing ring, then placing a black pawn on g6 (just outside the ring) prevents the knight from pushing forward.

Notice that if you place your queen on any 'outside' square of the ring then she will control 7 of the nine squares [in this context, control includes the square occupied in addition to squares attacked] and the only squares not controlled... They are always a knight's move away.

# Fundamentals of Chess: The Pieces

Our next two 'games' will involve the entire board.

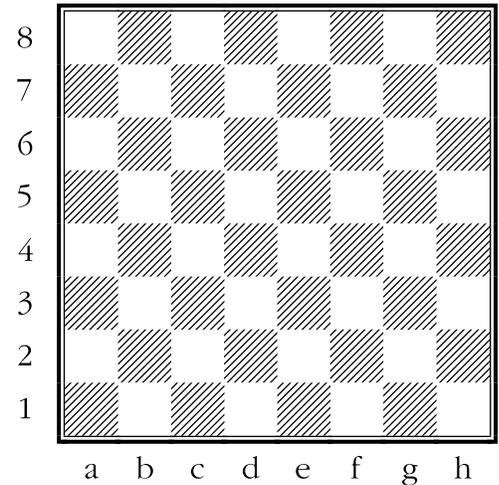
## Chess SPEED

We use the entire board to find out the speed and mobility of our pieces. How fast they can traverse the board? How many squares can they control?

Put a piece on the board and "map" each square for how far away that square is from the piece in terms of moves it takes to get there.



The Knight Span shows the technique.



## How many Pawns?

This last game is the most complex [but I'd say the most rewarding!]

It is a piece against pawn(s). In turn pick one of your pieces for white, and for black... ?

It will be only pawns.

You want to see how easy it is for your piece to stop the pawns from queening, what are the techniques?

This game was a natural extension of understanding the ending and its rules:

Such as two pawns on the sixth is equal to a rook.

The king must be "in the square" of a passed pawn in order to stop it.

But as you keep adding pawns, then you can see patterns regarding how far away pawns can be split, how many pawns can a rook deal with, a queen, a bishop, a knight, a king, and, of course, how far advanced.

After just playing with pawns then let black get his king back, and now it is a piece against king plus pawns.

**Clearly this is of tremendous value for playing the endgame better, but it also can help your middle game play [especially with respect to sacrificing a piece for pawns]**

The material presented here is a summary and outline of what I have discovered over the years. It *did* just come out all at once by just sitting down and thinking and 'playing the games'. After I "discovered" the boxing ring, for example, many things I had "known" became much clearer and easier to explain..

I have been able to utilize my training methodologies to allow players to find the ways to understand these and other key concepts "quickly and easily".

**Looking to Improve your Game ??**

**2018**

### Milestones:

50 years since my first USCF tourney

40 years since I became a Master

30 years as a Rolls-Royce Engineer

Top 50 in the U.S.: Players over 65

**FM Lester VanMeter**  
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