

## Chess Problems

Since it is better sharing knowledge and love than hiding them the author likes to impart the following ideas to beginners in Kerala to go beyond the realm the author crossed. Logic, reasoning, tactics etc. used in various types of problems may help someone to solve problems in mathematics and science also.

Relationship between chess and chess problems is comparable with that of grammar and poems. A grammarian may not essentially be a good poet although good knowledge in grammar is essential to become a good poet. Similarly, a good chess player may or may not be a good composer and vice-versa. In order to write good poems one must have imagination, wisdom and experiences along with deep knowledge in the language. Likewise, in order to compose beautiful problems and to solve them a thorough knowledge in the game, including international rules in the game, is essential. When a genius devotionally spends time the pieces get arranged as iron filings in the vicinity of a magnetic field and good quality problems originate. It may take even months to bring a problem to perfection. Therefore, it is no wonder if one takes hours or days to solve a problem. With a few exceptions, it is well known that it would take only lesser time to appreciate a poem than writing it. Let us see what is the significance of chess problems as an art or entertainment, leaving behind any concept of monetary benefit.

One might remember Deep Blue that analyzes two million positions in one second defeated Mr. Garry Kasparov in his peak of powers. It is amazing that he could win in two games with such a powerful machine. In future, if the power of such machines is increased no human can be expected to defeat them. But chess problems have difference. Although programs can solve problems it would be difficult for programs to compose good problems. If computers write poems and stories using programs it would only be enjoyable to other computers. Here is the difference between calculation and imagination. So, even if machines dominate in the games it may not happen in problem composing. There are International Masters and Grand Masters in this field also, rated by FIDE.

There are three major types of problems. These are-(1) Mate in  $n^{\text{th}}$  moves, (2) Help-mate in  $n^{\text{th}}$  moves and (3) Self-mate in  $n^{\text{th}}$  moves. In addition to this there are 'play and draw' type and fairy items like 'Circe'. In the international level knowledge in the first three types is essential and hence the author would like to discuss them briefly.

### 1. Mate in $n^{\text{th}}$ move

These are problems closely related with the games and hence most of the players are aware of them. In these types white starts the movement. Let a problem be of #2. That is, it should finish in two moves. White finds out the Key and makes the first move. Black defends/offends its best. In the second move White checkmates black. Here black pieces get only one move. Let another problem be #3. First white makes its move. Black defends/offends. White makes its second move and then black defends/offends by its second move. In the third move white checkmates black so that black gets only 2 movements. One should remember that both white and black should exploit their best movements. It is the solvers' duty finding out the best movements of both sides in any competition. If a three mover is finished within two movements it may be (1) either due to a mistake in the problem (the problem is 'cooked') or (2) the solver did not defend properly; that is, failed to find out the best defense of the black. In good quality problems the key will not start in a check because a key is directly visible to any fool. The merit of a problem rests in the mystery of the key, number of tries, self-block chances of the black, variations etc. A 'try' resembles a key but a particular defense of black defeats the threat. Many solvers fall in the trap of tries. No unwanted piece is allowed in any problem. A problem should be as economical as possible in terms of pieces as a poem in terms of words. A major piece should not be used in a case where a minor piece can achieve the objective. For instance, if a pawn is enough to control a particular square a Knight (stallion) or Bishop should not be used. Similarly, a queen should not be used when the objective is attainable with a Rook. There is no restriction as how many pieces should be used in composing. Problems can be composed in any position (except unlawful) with more than one queens or more than two other pieces.

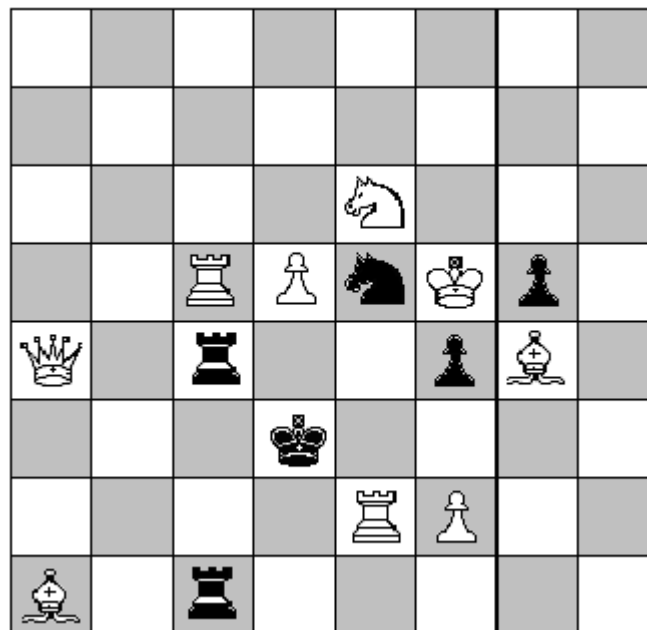
Mate in  $n^{\text{th}}$  move problems have a single key, the answer as a lock has no two types of keys. After the key movements the next movements of white depends on the

movement of black. There are various themes and sub divisions in this composition. I would like to discuss a single variety called 'zug-zwang'. This German term implies that as black is compelled to move, it loses. This compulsion on the part of black to make a move leads to its suicide, a Hara-kiri, the Japanese term for suicide. This is a very old theme and people do not compose much in it these days.

The unique feature of zug-zwang is that there is no threat for the black after white's key move. The composer has restricted the movements of the black in such a way that the threat appears only when the black moves any of its piece. The unavoidable movement of black becomes detrimental for its own king and hence it is called zug-zwang. The following example may illustrate the fact (white plays up the board and black down)

Problem No.1

#2 (mate in two moves) Zug-Zwang



Positions:

White: Kf5, Qa4, Rc5, Re2, Ne6, Ba1, Bg4, d5, f2

Black: Kd3, Rc1, Rc4, Ne5, f4, g5

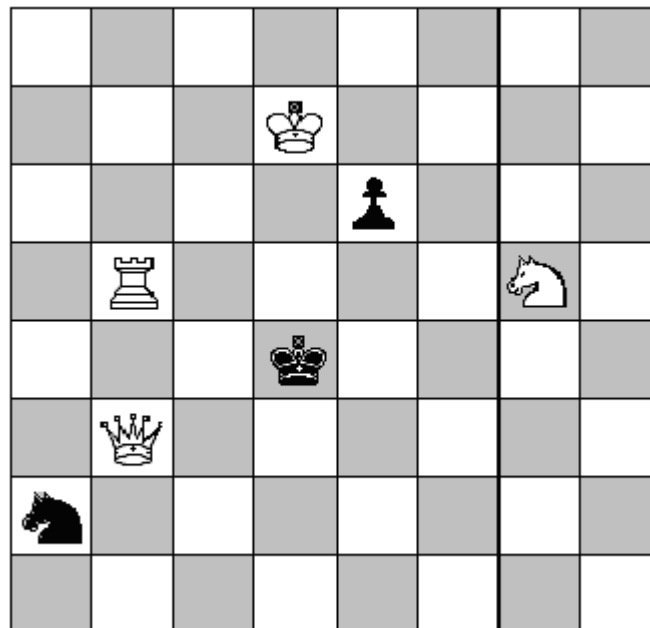
In the above-mentioned problem Qb3+ is defied by moving Rc4 to c3. In another attack let Rc5 cancelled Rc4. The aim is Rd4+ and/or Nc5+. Here black plays f3 and defends well. Then what is the key?

Bc3! And it forms a zug-zwang! One may wonder what is the use of this move. Let the black move any piece, and the treat appears! The movements could be summarized as follows....

- |      |    |      |                  |                     |
|------|----|------|------------------|---------------------|
| i.   | 1. | Bc3, | f3               | 2. Re3 + mate       |
| ii.  | 1. | "    | K x B            | 2 Qa3 + mate        |
| iii. | 1. | "    | Rc1 x B or Rc1d1 | 2 Qd1 + mate        |
| iv.  | 1. | "    | R x Q            | 2 Rd2 + mate        |
| v.   | 1. | "    | N any move       | 2 Q x R + mate      |
| vi   | 1. | "    | Rc4 x B          | 2 Qd4 or Qe4 + mate |

(In the competitions one should present the answer like this). In the above problem in the sixth variation two possibilities of mates are there. It is called dual and it is a defect. Now three problems are given below for the interested people to solve. The answers are given in the last page. In order to enjoy the problems, please try and verify with the given answer. Let us start with a miniature. It is such a problem in which one should not use more than 7 pieces for composing.

Problem No-2  
Miniature #2 (mate in two moves)

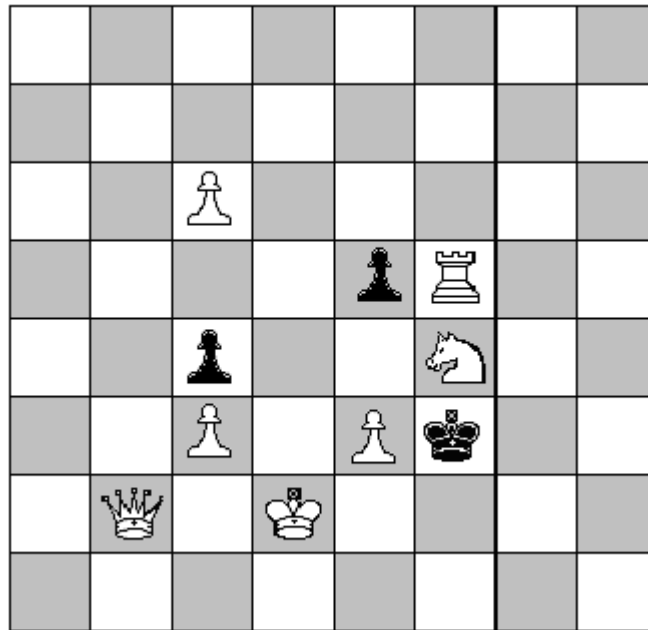


Positions:

White: Kd7, Qb3, Rb5, Ng5

Black: Kd4, Na2, e6  
 Problem No.3

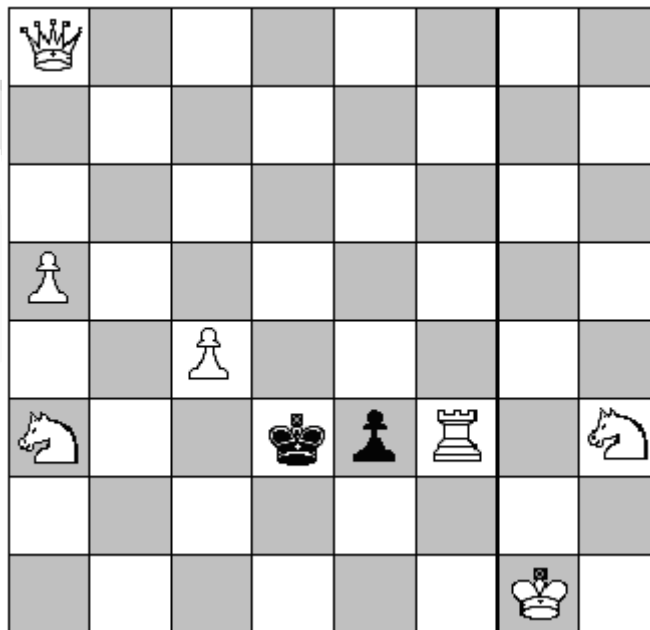
#3 (mate in three moves)



Positions: White-Kd2, Qb2, Rf5, Nf4, c3, c6, e3

Black: Kf3, c4, e5

Problem No. 4

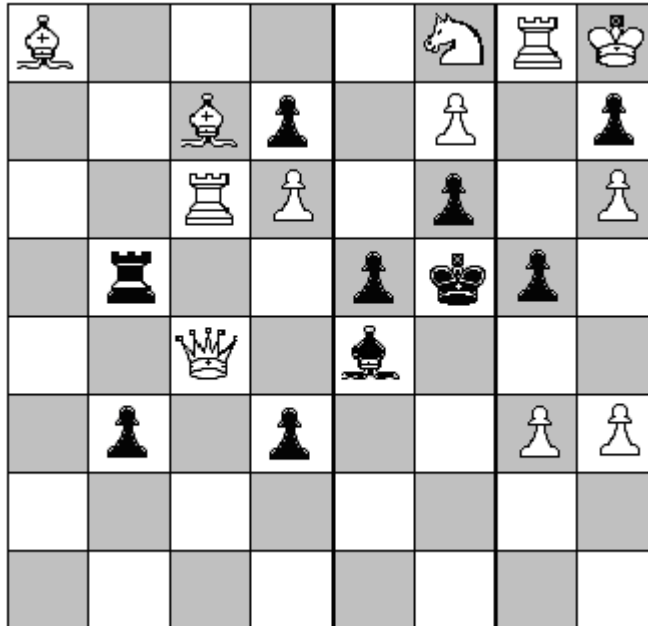


#3 (mate in three moves)

Positions:  
 White: Kg1, Qa8, Rf3, Na3, Nh3, a5, c4.

Black: Kd3, e3.

## Problem No-5



Positions:

White- Kh8, Qc4, Rc6, Rg8, Nf8, Ba8, Bc7, d6, f7, g3, h3, h6

Black- Kf5, Rb5, Be4, c3, d3, d7, e5, f6, g5, h7

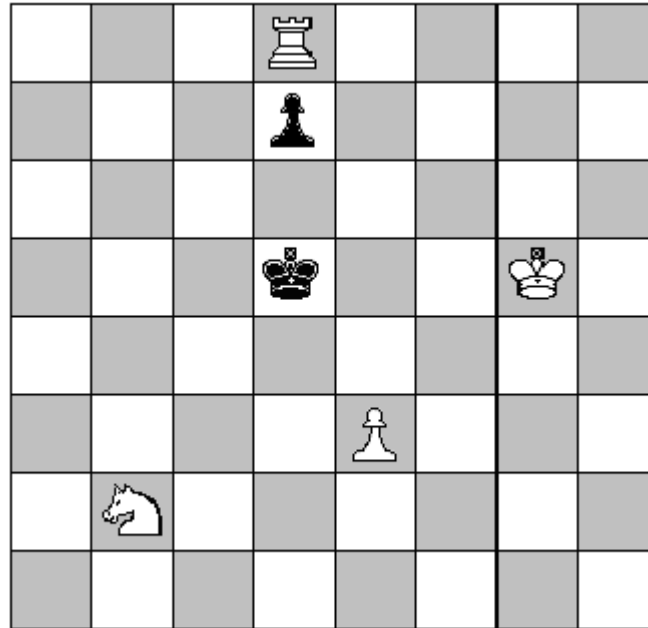
Now let us discuss briefly on other two types of problems.

## 2. Help - mate in $n^{\text{th}}$ move

This idea may annoy a chess player. In this sort of problem the first movement is for the black. Black may cunningly move its pieces so that white could mate its king. One may wonder how easy it would be if black and white are engaged in match fixing. It is true that any one can write poems if writing materials are available, but there may not originate quality problems. Similarly, it is not easy to compose and solve elegant problems of this variety. Suppose a help-mate #2 is given. Black makes its move first. White moves with the aim to checkmate black king. Then black makes its second move. Now white in its second move checkmates black. More than one solution increases the merit here. But, the key and the other moves should be different. A very simple example of #3 help-mate is given below.

## Problem No. 6

#3 (Help-mate in three moves) two solutions



Positions:

White: Kg5, Rd8, Nb2, e3

Black: Kd5, d7

- i) 1. Ke5, e4                      2. d5, Rd6                      3. d5x e4, Nc4 +mate  
 ii) 1. Ke4, Kg4                      2. d5, Nc4                      3. d4, R x d4 +mate

In the above problem, in the second solution white can move the knight (stallion) or the king in its first move. Such interferences are defects. The merit of the problem is that it is a miniature and its all pieces participate in both the answers.

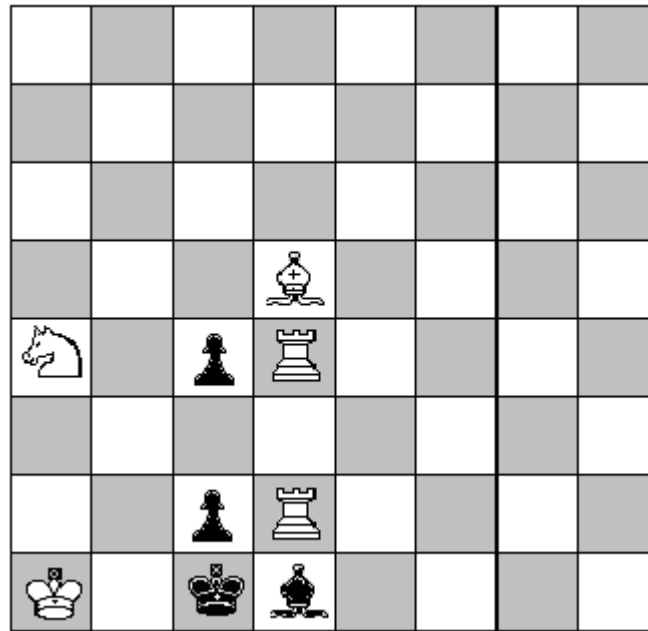
### 3. Self-mate in n<sup>th</sup> move

This is quite strange a type of problem. In this type white compels black to checkmate white king. The black pieces try their level best not to checkmate white. Even when black is forced to promote its pawn it will not take queen or rook but may take only knight or bishop to avoid the checkmate. But white will not allow black pieces to escape. Since the logic and reasoning used in this type is different from the first type it is not easy to compose and solve this for beginners. One may call this

type as the mirror image of the first type. The sample given is not of high quality but it may illustrate the manner of the game.

Problem No. 7

#4 (Self-mate in four moves)



Positions:

White: Ka1, Rd2, Rd4, Bd5, Na4

Black: Kc1, Bd1, c2, c4

Key: Rg2!

Here Rf2 or Rh2 is refuted by playing BB(Black bishop) e2 or f3

1. Rg2, c3    2. Ba2, Be2 (or any)    3. Rg1+, Bd1 or Bf1    4. Nb2, c3 x N + mate

1. Rg2, Be2 (or any)    2. Rg1+, Bd1 (or f1)    3. Nb2, c3    4. Ba2, c3 x N + mate

These are the major types of problems seen in international solving-composing tourneys. But, if anyone has ambition to become an international master



or grand master in this field one must be well versed in all sorts of problems. Russians are far advanced in this field. British Chess Problem Society publishes a high standard journal, 'The Problemist', which is very informative.

All problems given in this works are original ones the author composed. The first five are published in L' Italia Scacchistica (Italy) as part of its International composing category. I hereby pay my tribute to Mr. C.G.S. Narayanan, the former chess editor of The Hindu daily and Mr. Joy Gurunagar (Thodupuzha) for their encouragements that helped me to do a small step in this. Now I am slowly improving with the help of Mr. Christopher Reeves, the editor of two-movers in The Problemist.

## Answers

### Problem No: 2

Positions:

White: Kd7, Qb3, Rb5, Ng5

Black: Kd4, Na2, e6

K x e6 is refuted by Nc3

Key: Rc5! (zz)

- |       |                 |                 |
|-------|-----------------|-----------------|
| i).   | 1. Rc5, K x R   | 2. N x e6 +mate |
| ii).  | 1. Rc5, e5      | 2. Rd5 +mate    |
| iii). | 1. Rc5, N (any) | 2. Qc3 +mate    |

### Problem No.3

Positions: White-Kd2, Qb2, Rf5, Nf4, c3, c6, e3

Black: Kf3, c4, e5

Ke1 is refuted by e5 x N

Key: Qb8! (zz)

- |      |         |        |                  |             |
|------|---------|--------|------------------|-------------|
| i)   | 1. Qb8, | Ke4    | 2. Qg8 (zz), KxR | 3. Qg6+mate |
| ii)  | 1. "    | "      | 2. Qg8, e5xN     | 3. Qd5+mate |
| iii) | 1. "    | Kf2    | 2. Qg8, Kf3      | 3. Qg2+mate |
| iv)  | 1. "    | e5 x N | 2. Qg8, Ke4      | 3. Qd5+mate |

v) 1. " " 2. Qg8, Kf2 3. R x f4mate

#### Problem No-4

Positions

White: Kg1, Qa8, Rf3, Na3, Nh3, a5, c4.

Black: Kd3, e3.

Qd5+ or Qd8+ is defended by Kc3

Key: Qh8! (zug-zwang)

i)	1. Qh8, Ke4	2. Qb2! (ZZ),	K x R	3. Qg2+ Mate
ii)	1. " "	2. " ,	Kd3	3. Nf2+ "
iii)	1. " "	2. " ,	e2	3. Ng5+ "
iv)	1. " , Kd2	2. Qb2+ ,	Kd1 or Ke1	3. Rf1+ "
v)	1. " , Ke2	2. Qb2+ ,	KxR	3. Qg2+ "

#### Problem No-5

Positions:

White- Kh8, Qc4, Rc6, Rg8, Nf8, Ba8, Bc7, d6, f7, g3, h3, h6

Black- Kf5, Rb5, Be4, c3, d3, d7, e5, f6, g5, h7

Try: 1. Rc5 or Rb6, Rb7 or Rd5 respectively 2. B x R, Bf3

Cannot finish in 3 moves

Key: Qa4! Zwug-Zwang!

1. Qa4, Rb4 2. Rc4, R x R 3. Q x d7+

1. Qa4, Rb7 2. Rb6

1. Qa4, b2 2. Qd1

1. Qa4, d2 2. Rc3

Thanks!!! Try to compose problems with threats!!! Best regards!!!