Chess Merit Badge







- The history of chess spans some 1500 years.
- The earliest predecessors of the game originated in India, before the 6th century AD.
- From India, the game spread to Persia. When the Arabs conquered Persia, chess was taken up by the Muslim world and subsequently spread to Southern Europe.
- In Europe, chess evolved into its current form in the 15th century.

- The game, as played during the early Middle Ages, was slow, with many games lasting for days.
- Some variations in rules began to change the shape of the game by 1300 AD.
 - A notable, but initially unpopular, change was the ability of the pawn to move two places in the first move instead of one.
- The queen and bishop remained relatively weak until between 1475 AD and 1500 AD, in either Spain, Portugal, France or Italy, the queen's and bishop's modern moves started and spread, making chess close to its modern form.

- In Europe some of the pieces gradually got new names and/or moves:
 - Fers: "queen", because it starts beside the King.
 - Aufin: "bishop", because its two points looked like a bishop's mitre.
 - Pawn moving two squares in its first move. This led to the en passant rule: a pawn placed so that it could have captured the enemy pawn if it had moved one square forward was allowed to capture it on the passed square.
 - King jumping once, to make it quicker to put the king safe in a corner. (This eventually led to castling.)

- In the second half of the 19th century, modern chess tournament play began, and the first world Chess Championship was held in 1886.
- The 20th century saw great leaps forward in chess theory and the establishment of the World Chess Federation (FIDE).
- Developments in the 21st century include use of computers for analysis, which originated in the 1970s with the first programmed chess games on the market.
- Online gaming appeared in the mid 1990's.

Chess: A Game of Planning and Strategy

- It is considered a game of strategy and planning because during the game, you plan and do certain strategies based on the positional elements of the pieces.
 - These include pawn structure, king safety, piece placement and mobility.
- However, the answer is not quite as simple as saying that chess involves strategy and planning.
 - The thing to notice is that chess does not involve chance.

Chess: A Game of Planning and Strategy

- All of your theoretically possible next moves and your opponent's possible next moves that are known, defined, and visible to both players effects your strategy and planning.
- The further ahead your brain can plan, the stronger you can become as a player.
- A player with better planning and strategy will always win.

Chess: A Game of Planning and Strategy

- Contrast this with a card game, and you will see that some elements of the card game depend on chance -- what cards you will draw in gin rummy for example; or a board game like Monopoly where the outcome depends in part on a roll of the dice.
- In a gin rummy or a monopoly game sometimes luck will enable a player to win a game, even if his planning and strategy are not as good as his opponents.

The Benefits of Playing Chess

- Here is a short list of just some of the benefits of learning and Playing Chess:
 - Provides practice at making accurate and fast decisions under time pressure.
 - Drills skills that can help improve exam scores.
 - Improves reading.
 - Pattern recognition enhanced.
 - Teaches sportsmanship.
 - Dealing with difficult choices.
 - Making the best choice from a group of good choices.
 - Teaches to learn from mistakes.

The Benefits of Playing Chess

- Here is a short list of just some of the benefits of learning and Playing Chess:
 - Responsibility for actions.
 - Concentration is vigorously practiced.
 - Logical reasoning is sharpened.
 - Measurable individual accomplishments are enjoyed.
 - Critical thinking.
 - Memory is enhance.
 - Problem solving and 'what if' skills.
 - Intellectual maturity is fostered.

The Benefits of Playing Chess

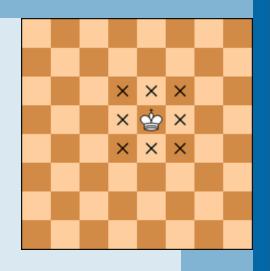
- Here is a short list of just some of the benefits of learning and Playing Chess:
 - Belonging to a good crowd.
 - Self esteem.
 - Mind enrichment.
 - Mental exercising.
 - Analyzing actions and consequences.
 - The importance of planning.

Sportsmanship and Chess Etiquette

- Be polite, and get off to a good start.
- Don't boast, talk trash, or try to intimidate your opponent.
- Don't argue with your opponent.
- Don't give or ask for advice.
- Don't be annoying.
- Don't try to trick your opponent by pretending to have made a bad move.
- Do not rush your opponent.
- After your game, be a good winner or loser.
- Saying "check" is not required, but is considered polite.

The King

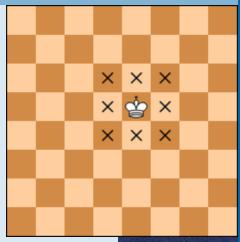
- The highest ranking Chess piece, and it can move one square at a time in any direction.
- When the king is placed in jeopardy of being captured, it is said to be in check and must be moved, or the checking piece blocked by another piece.



• If the king is placed in check, and the king cannot move to a safe square, and the danger cannot be blocked, or the checking piece captured, the king is said to be in checkmate and the game is over.

The King

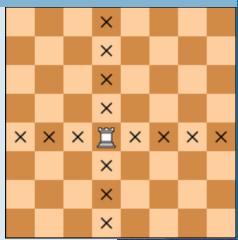
- The **King** is the highest ranking Chess piece, and it can move one square at a time in any direction.
- When the King is placed in jeopardy of being captured, it is said to be in check and must be moved, or the checking piece blocked by another piece.
- If the King is placed in check, and the king cannot move to a safe square, and the danger cannot be blocked, or the checking piece captured, the king is said to be in checkmate and the game is over.





The Rook

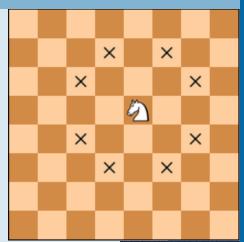
- The Rook, or Castle, can move one or multiple squares in a straight line in any direction.
- There are two rooks per side, for a total of four.
- It occupies the outside square of the very back row, one on each side, one occupying a black square and one occupying a red square of the chess board.





The Knight

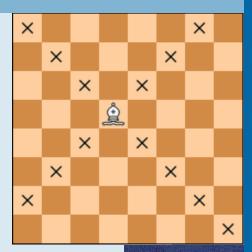
- There are two **Knights** per side, four knights per chess set.
- The knight has the most complicated move.
- It can move one square straight and one square diagonal any direction.
- It is the only piece which can move around another piece.
- The knight occupies the square right next to the rook in the back row, again one on red and one on white.





The Bishop

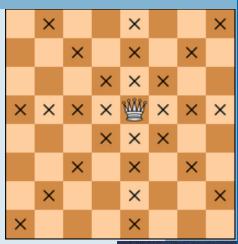
- **Bishops** also number two per side, and can move one or multiple squares in any diagonal direction.
- These are located right next to the knight in the back row.
- These are the only pieces which occupy only one color square during the entire game.





The Queen

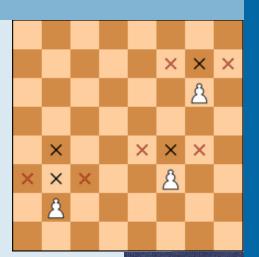
- The **Chess Queen** is the most powerful piece on the board, and each player has one.
- It can move one or multiple squares, straight or diagonal.
- The queen is located to the right of the King at the beginning of the game.





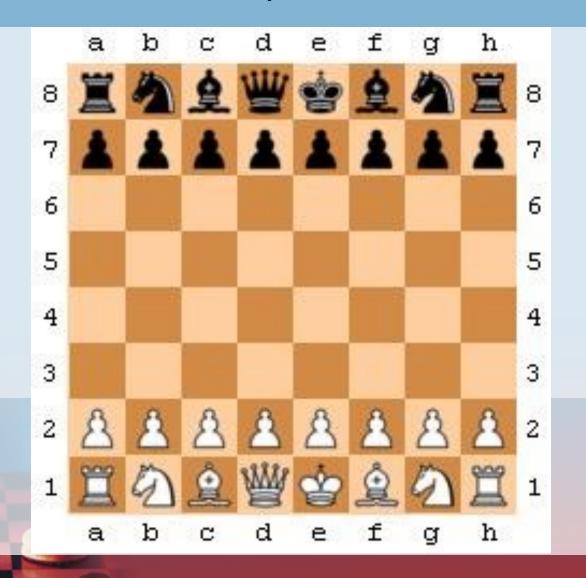
The Pawn

- The **Pawn** is the weakest piece, as it can only move forward one square at a time but, on its initial move, it may move two squares.
- It cannot move backwards.
- There are eight pawns on each side and at the start of play the entire second row of the board is occupied by pawns.
- If you advance a pawn to your opponent's last row of squares, it can be promoted to a piece of any rank above it, including the queen, (even if you already have one on the board.)





How to Set Up a Chessboard

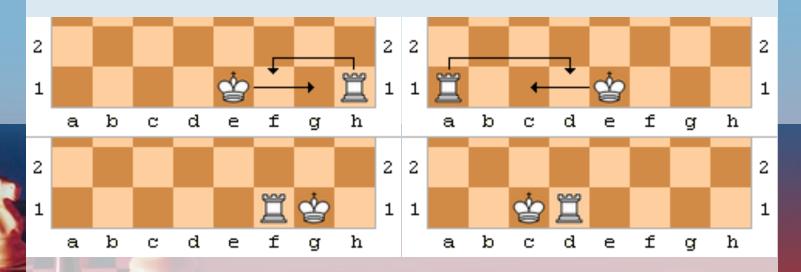


Castling

- **Castling** can only occur if there are no pieces standing between the king and the rook.
- Neither king nor the rook to be castled with may have moved from its original position.
- There can be no opposing piece that could possibly capture the king in his original square, the square he moves through or the square that he ends the turn.

Castling

- The king moves two squares toward the rook he intends to castle with (this may be either rook).
- The rook then moves to the square through which the king passed.

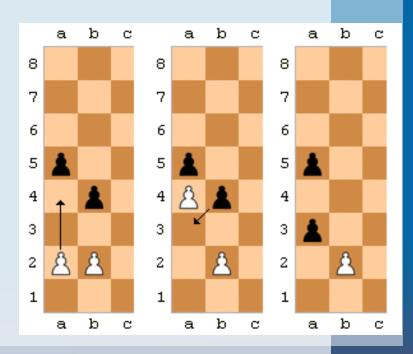


En Passant Captures

- **En passant captures** is a special pawn capture which can occur immediately after a player moves a pawn two squares forward from its starting position, and an enemy pawn could have captured it had it moved only one square forward.
- The opponent captures the just-moved pawn as if taking it "as it passes" through the first square.
- The resulting position is the same as if the pawn had moved only one square forward and the enemy pawn had captured normally.

En Passant Captures

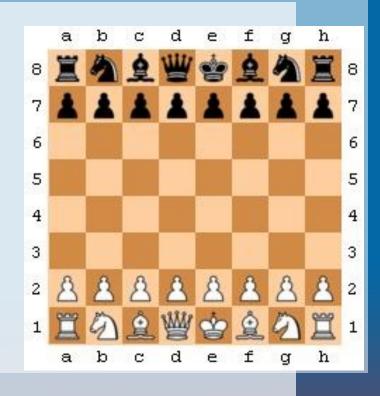
- The en passant capture must be done on the very next turn, or the right to do so is lost.
- Such a move is the only occasion in chess in which a piece captures but does not move to the square of the captured piece.



- Algebraic notation (or AN) is a method for recording and describing the moves in a game of chess.
- It is now standard among all chess organizations and most books, magazines, and newspapers.

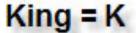
- Each square of the chessboard is identified by a unique coordinate pair consisting of a letter and a number.
- The vertical rows of squares (called files) from White's left (the queenside) to his right (the kingside) are labeled a through h.
- The horizontal rows of squares (called ranks)
 are numbered 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, the white king starts the game on square
 e1, while the black knight on b8 can move to open squares a6 or c6.



- Each type of piece (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.
- Pawns are not indicated by a letter, but rather by the absence of any letter—it is not necessary to distinguish between pawns for moves, since only one pawn can move to a given square.







Queen = Q



Knight = N



Bishop = B



Rook = R



Pawn =

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



- When a piece makes a capture, an x is inserted between the piece's letter and the destination square.
- For example, **Bxc6** (bishop captures the piece on **c6**).



- When a pawn makes a capture, the *file* from which the pawn departed is used to identify the pawn, rather than a letter representing the pawn itself.
- For example, exd5 (pawn on the e-file captures the piece on d5).



En passant captures are notated by specifying the capturing pawn's file of departure, the x, the destination square (not the square of the captured pawn), and the suffix e.p. indicating the capture was en passant.

For example, exd3e.p.



- 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 (in descending order of preference):
 - 1. The **file** of departure (if they differ); or
 - 2. The **rank** of departure (if the files are the same but the ranks differ); or
 - 3. Both the **rank** and **file** (if neither alone is sufficient to identify the piece—which occurs only in rare cases where one or more pawns have promoted, resulting in a player having three or more identical pieces able to reach the same square).

- For example, with rooks on a1 and f2, either of which might move to c3, the "a" must be included to indicate which rook.
- Notice how the move is Raxc1.
- As noted above, an x is inserted to indicate a capture.



- When a pawn moves to the last rank and promotes, the piece promoted to is indicated at the end of the move notation.
- Black captures White's Bishop on c1 with dxc1=Q.



- dxc1=Q means pawn captures piece on c1 and promotes it to a Queen.
- Black could promote it to any other piece he chooses, but Queen's are nearly always the best choice.



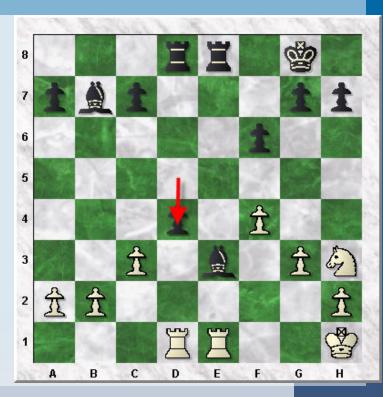
The Algebraic System of Chess Notation

 See how white has made a special move called castling kingside. This move is written as 0-0. If the King castles on the queenside (to the other direction on the chessboard) it would be written as 0-0-0.



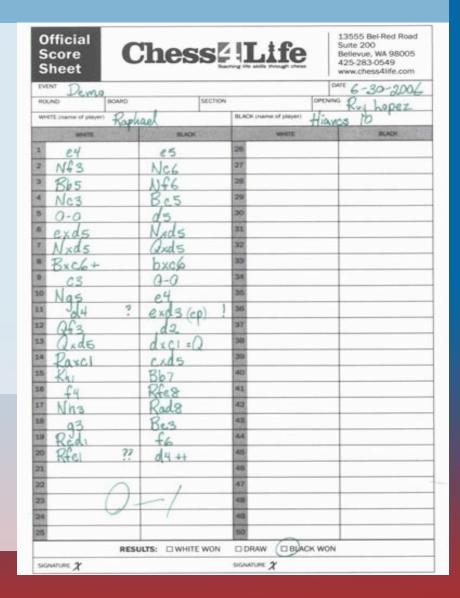
The Algebraic System of Chess Notation

- A move which places the opponent's king in check usually has the notation "+" appended.
- Checkmate at the completion of moves is notated "++".
- d4++ "Checkmate"
- The notation 1–0 at the completion of moves indicates that White won, 0–1 indicates that Black won, and 1/2–1/2 indicates a draw.



The Algebraic System of Chess Notation

 Notice how the previous moves and notations have been shown on the sample score sheet.



Stages in the Game of Chess

- There are three distinct stages to the game of chess that you need to know in order to be a winning chess player.
- These three stages are the:
 - Opening
 - Middle
 - Endgame.
- Each stage has different goals and objectives.

Opening Stage

- The opening you want to get a rapid development of your primary pieces.
- You also want to safe guard your king, generally by castling.
- It is in this phase of the game that you want to try and achieve dominance over the middle four squares of the board.
- Generally the opening lasts between ten to twenty moves roughly.

Middle Stage

- The middle game is when you begin to coordinate your primary pieces and attack your opponent's weak spots and open files.
- The goal is to win primary pieces from your opponent or even be able to checkmate your opponent.
- The middle game is approximately from the end of the opening phase until around move forty.

End Stage

- The end game is when you use your remaining primary pieces to take advantage of the weaknesses that you created in your opponent's defense during the middle game.
- The endgame often concludes when one of the players is able to move a pawn to the other side of the board and thus turn that pawn in for a queen.
- This is then followed by a checkmate or a resignation.
- Strategy, not tactics are what need to be considered in the end game.

Classical Opening Principles

- The four major aspects of Classical Opening Principles are:
 - 1. Centralization
 - 2. Quick Development
 - 3. Early castling
 - 4. Knights before Bishops

Centralization

- The most important part in the chessboard is the center.
- Pieces placed in the center attack more squares than those positioned on the sides of the board.
 - A knight placed in "d4" can effectively attack eight squares.
 - They are c2, b3, b5, c6, e6, f5, f3, and e2.
 - The same knight in h1 can attack only two squares f2 and g3.
- If you do not control or possess a fair share of the center, then it might be difficult to maneuver pieces from one side of the board to the other side of the board.

Quick Development

- The second important part of Classical Opening Principles is Quick Development.
- You might know that pawns are of the lowest cadre.
- The minor pieces such as bishops and knights are the next cadre.
- The Queen and the rooks are the major pieces in the chessboard.
- The ultimate superior is the King.

Quick Development

- According to classical principles, developing minor pieces is considered important before developing major pieces such as rooks and the queen.
- It should be ensured that pawn movements are restricted to the minimum.
- The knights can jump over other pieces in the board and as such, pawn movement is not necessary for developing the knights.
- If you open up the pawns in front of the King and the Queen, then the two bishops are opened up, and so are the Queen and the King.

Early Castling

- Castling is one of the special moves in chess where the king is allowed to move two squares in a single move.
- In addition, two pieces are moved in a single move, the King and the Rook.

Early Castling

- The two rooks are in the two corners.
- In line with the concept of quick development, both the minor pieces such as bishops and knights can be moved out after the pawns in front of the queen and the king are opened.
- Now there will be no pieces in between the King and the Rook at the kingside, while queen will be there in the queenside.
- You can take up castling on the kingside, thereby opening up the rook to combine with the Queen and the other rook.
- In addition, the King in the first row will be guarded by the Queen and two rooks.

Knights before Bishops

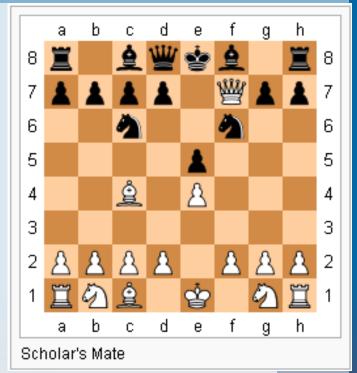
- Another part of the classical opening principles is to move the knights before the bishop.
- As already stated, the knights can be moved without waiting for the pawns to leave way, as they are capable of jumping over pieces lying in between the original square and the destination square of the knight.
- As such, it is suggested that knights are moved into the front before opening up the bishops.

The Four Rules of Castling

- Castling is only permissible if all of the following conditions hold:
 - 1. The king and rook involved in castling must not have previously moved;
 - 2. There must be no pieces between the king and the rook;
 - 3. The king may not currently be in check, nor may the king pass through or end up in a square that is under attack by an enemy piece (though the rook is permitted to be under attack and to pass over an attacked square);
 - 4. The king and the rook must be on the same rank.

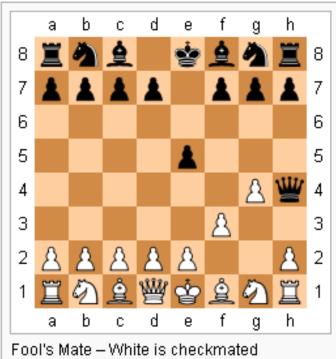
Scholar's Mate

- Scholar's Mate is the checkmate achieved by the moves 1. e4 e5 2. Qh5 Nc6
 3. Bc4 Nf6 4. Qxf7++.
- The moves might be played in a different order or in slight variation, but the basic idea is the same—the queen and bishop combine in a simple mating attack on f7 (or f2 if Black is performing the mate).



Fool's Mate

- Fool's Mate is the quickest possible checkmate in the game of chess.
- A prime example consists of the moves:
 - 1, f3 e5
 - 2. g4 Qh4++
- The pattern can have slight variations – White might play f2-f4 instead of f2-f3 or move the g-pawn before the f-pawn, and Black might play e7-e6 instead of e7-e5.



Draws in Chess

- The game ends in a draw if any of these conditions occur:
 - The game is automatically a draw if the player to move is not in check but has no legal move. This situation is called a stalemate. An example of such a position is shown in the diagram to the right.
 - The game is immediately drawn when there is no possibility of checkmate for either side with any series of legal moves. This draw is often due to *insufficient material*, including the endgames:
 - king against king;
 - king against king and bishop;
 - king against king and knight;
 - king and bishop against king and bishop, with both bishops on diagonals of the same color.

Draws in Chess

- The game ends in a draw if any of these conditions occur:
 - Both players agree to a draw after one of the players makes such an offer.
 - The player having the move may claim a draw by declaring that one of the following conditions exists, or by declaring an intention to make a move which will bring about one of these conditions:
 - Fifty-move rule: There has been no capture or pawn move in the last fifty moves by each player.
 - Threefold repetition: The same board position has occurred three times with the same player to move and all pieces having the same rights to move, including the right to castle or capture *en passant*.

Exploiting Weaknesses

- Chess requires that we look for weaknesses in our opponent's positions while keeping ourselves out of weak positions.
- As always, the game remains a balance of attacking and defending.
- A weakness is simply a flaw in a position that we can exploit.
- These weaknesses can be anything from an open line to poor piece placement to overworked pieces.
- Depending on what stage we are at in the game we will see different weaknesses in our opponent.

Force

- A recurring aim of chess strategy is to force your opponent to choose between a bad scenario and a downright unpleasant one.
 - i.e. having to choose between saving a queen or rook or forcing your opponent to move out of check and sacrificing a piece as a result.)

King Safety

- An unsafe king is generally the greatest weakness a position can have.
- Typical elements that weaken the king's safety are:
 - Any weakness or absence in the pawn shield in front of the king.
 - Fewer defenders than opposing attackers in the area near the king.
 - Lack of center control gives attacking pieces easier access towards the unsafe king.
 - A king that delayed castling for too long (unless the center is blocked).

Pawn Structure

- The quality of the pawn structure can usually be judged by these factors:
 - How it supports and affects the mobility of the pieces,
 - How dynamic it is (how easily it can change),
 - The presence of weaknesses like some isolated pawns and
 - The squares which have been permanently weakened by pawn moves.
- If possible, weaknesses in the pawn structure should be fixed before they become permanent.
- However, a weakness in the pawn structure is only relevant if the opponent can attack them.

Space

- Space advantage refers to one side controlling more squares of the board than the other side.
- Since this extra space will naturally increase the mobility and flexibility of your pieces – their quality will increase.
- It follows that the space advantage is one of the most important chess strategic advantages you should play for.

Tempo

- Tempo refers to a "turn" or single move.
- When a player achieves a desired result in one fewer move, he "gains a tempo" and conversely when he takes one more move than necessary he "loses a tempo".
- Similarly, when one forces his opponent to make moves not according to the initial plan, one "gains tempo" because the opponent wastes moves.

Timing

- Tournament games are played under time constraints, called time controls, using a game clock.
- Each player must make his moves within the time control or forfeit the game.
- There are different types of time controls.
 - In some cases each player will have a certain amount of time to make a certain number of moves.
 - In other cases each player will have a limited amount of time to make all of his moves.

- Clearance sacrifice occurs when the attacker deliberately sacrifices material in order to "clear the way" for one of his pieces.
- This can mean freeing a diagonal, a file, a rank, or a square so that a piece can make use of it for attacking purposes.

- **Decoy** is a chess tactic where an important piece, usually the King or Queen of the opponent, is forced to move to some specific position where it can be subjected to a mating or capturing attack.
- This tactic is also commonly associated with a sacrifice.

- Discovered attack is a move which allows an attack by another piece.
- A piece is moved away so as to allow the attack of a friendly bishop, rook or queen on an enemy piece.

- Double attack is two attacks made with one move:
 - These attacks may be made by the same piece (in which case it is a *fork*);
 - or by different pieces (a situation which may arise via a discovered attack in which the moved piece also makes a threat).
- The attacks may directly threaten opposing pieces, or may be threats of another kind:
 - For instance, to capture the queen and deliver checkmate.

• **Fork** is a tactic that uses a single piece to attack multiple pieces at the same time. The attacker usually hopes to gain material by capturing one of the opponent's pieces. The defender often finds himself in a difficult position in which he cannot counter all threats. The attacking piece is known as the *forking* piece. Conversely, the pieces that the forking piece is attacking are said to be *forked*.

• **Interference** occurs when the line between an attacked piece and its defender is interrupted by sacrificially interposing a piece.

 Overloading is a chess tactic in which a defensive piece is given an additional defensive assignment which it cannot complete without abandoning its original defensive assignment.

- Overprotection in chess is the strategy of protecting a pawn or specific square of the chessboard more than is immediately necessary.
- This serves to dissuade the opponent from attacking that specific point and provides greater freedom of movement for the pieces protecting that square.

- **Pinning** is when a piece cannot move (either legally or advisedly) because doing so would expose a valuable piece, usually the king or queen, to attack.
- Pins against the king are called absolute because it is then illegal to move the pinned piece.

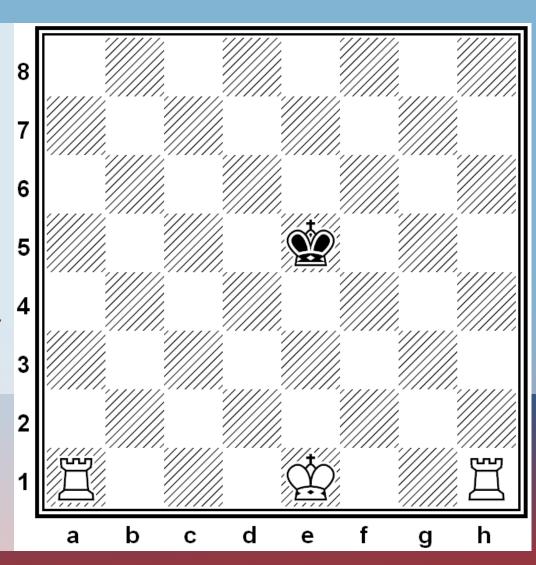
• **Skewer** An attack to a valuable piece, compelling it to move to avoid capture and thus exposing a less valuable piece which can then be taken.

Chess Tactics

- **Zwischenzug** means intermediate move.
- Picture your opponent making a move that directly threatens one of your pieces.
- After you opponent has done this you are able to follow up with the Zwischenzug tactic.
- When this tactic is used in the game of chess you will make a move that poses an even more devastating threat, instead of countering a direct threat, which the opponent expected you to do.
- Often the move that you made will be a direct attack against the opponent's queen or the king.
- The opponent is forced to counter that threat against his or her queen or king first and this will ideally change the situation to his or her disadvantage.

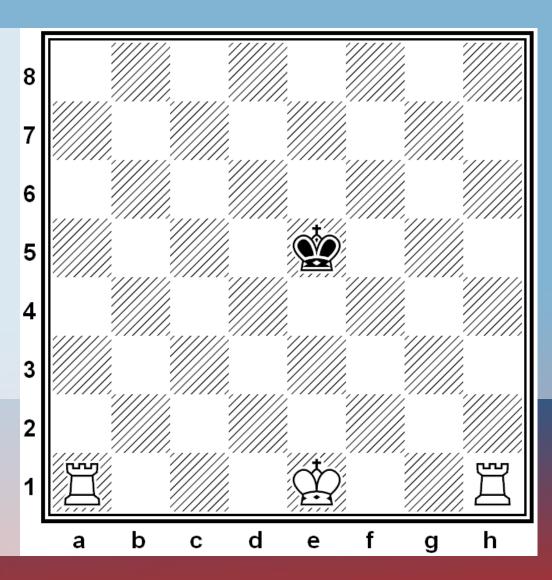
Demonstrate how to Force Checkmate

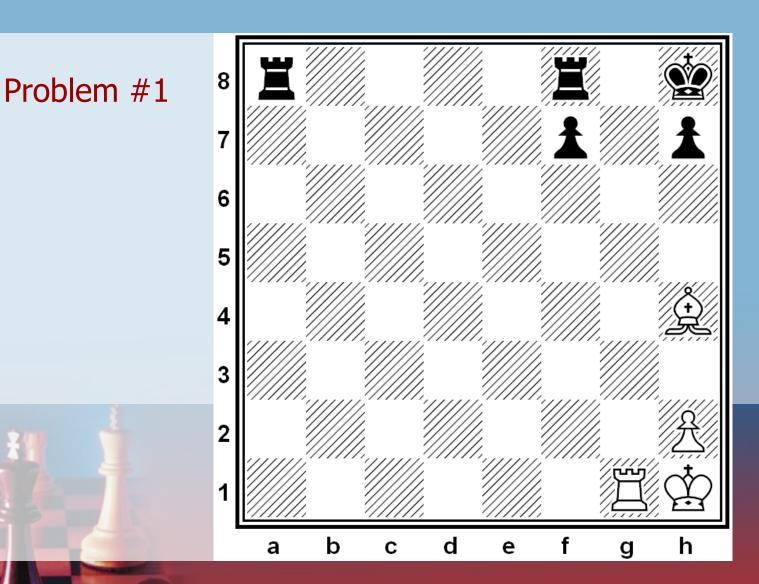
- White king on e1, white rooks on a1 and h1, and the black king on e5.
- With White
 to move first,
 demonstrate
 how to force
 checkmate
 on the black
 king.

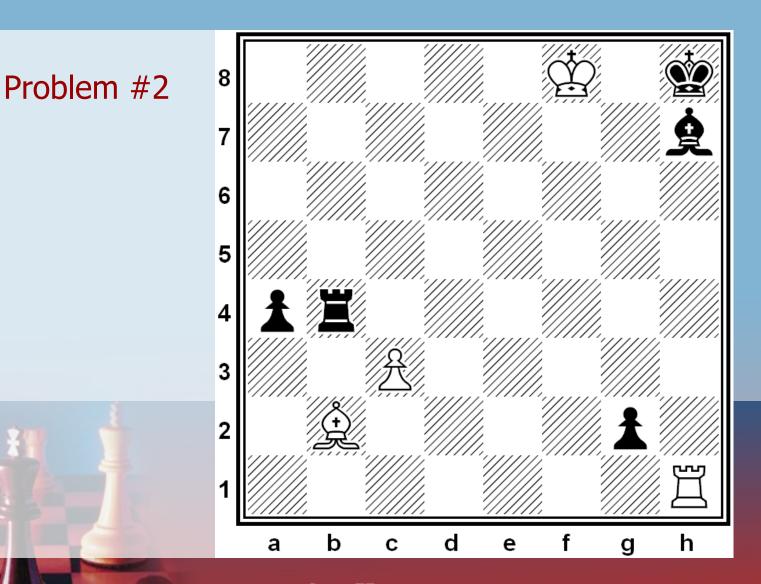


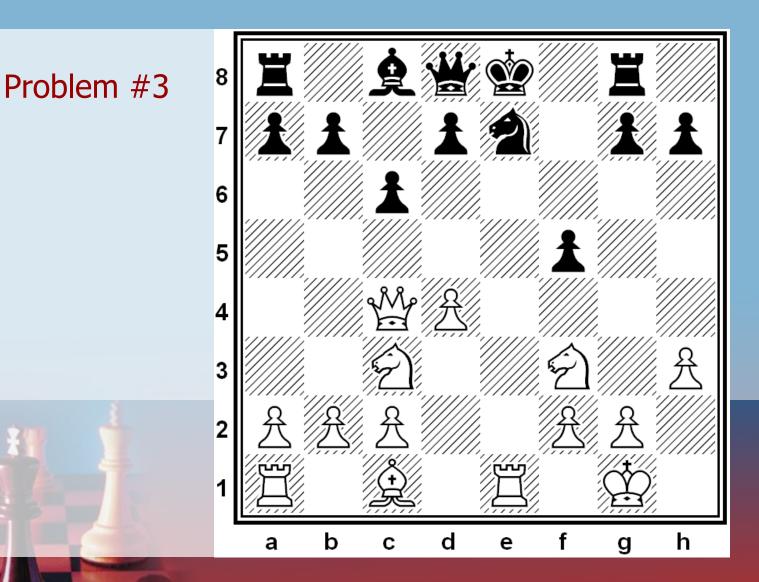
Demonstrate how to Force Checkmate

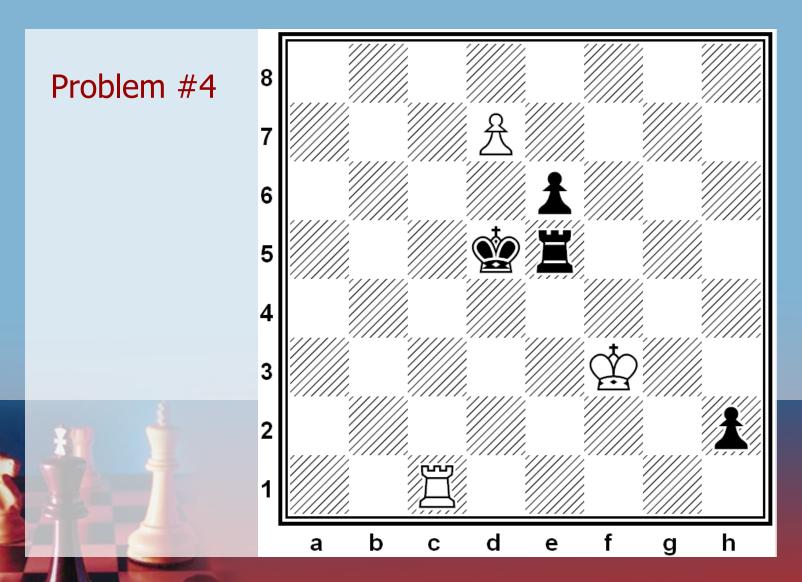
- 1. Rh4 Kf5
- 2. Ra5+ Kg6
- 3. Rb4 Kf6
- 4. Rb6+ Ke7
- 5. Ra7 Kd8
- 6. Rb8++

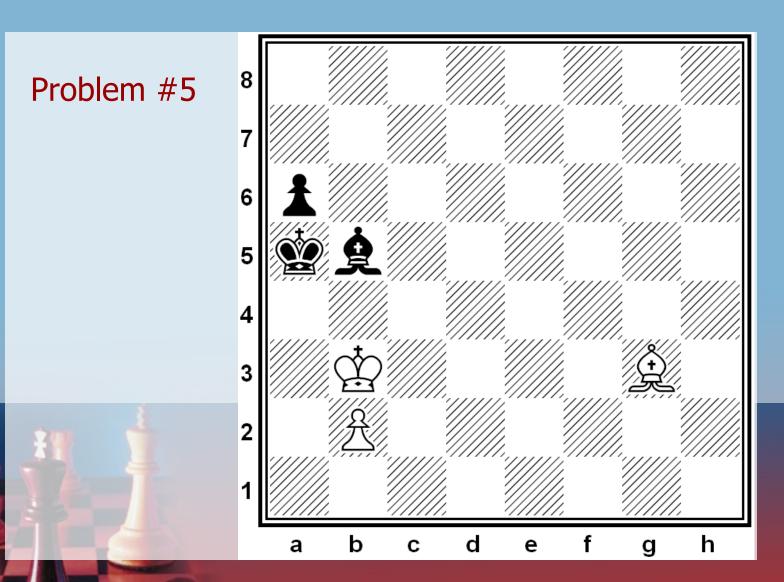












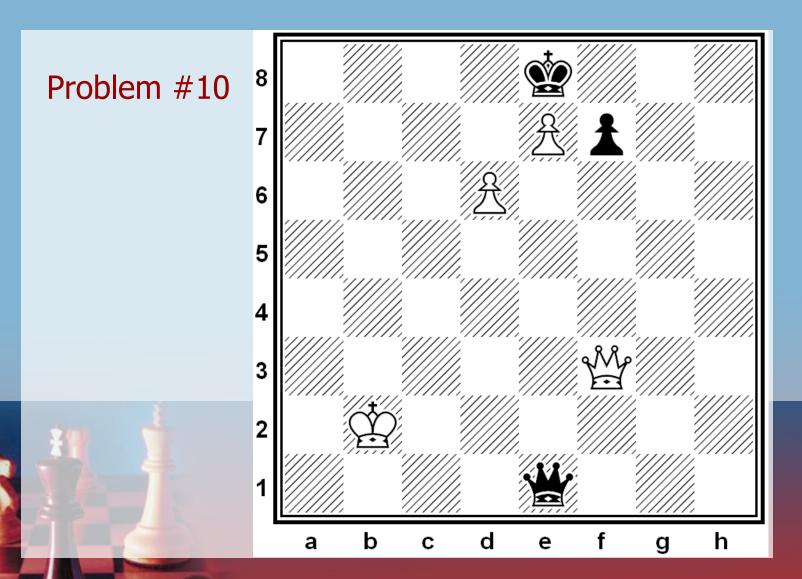
6 d а

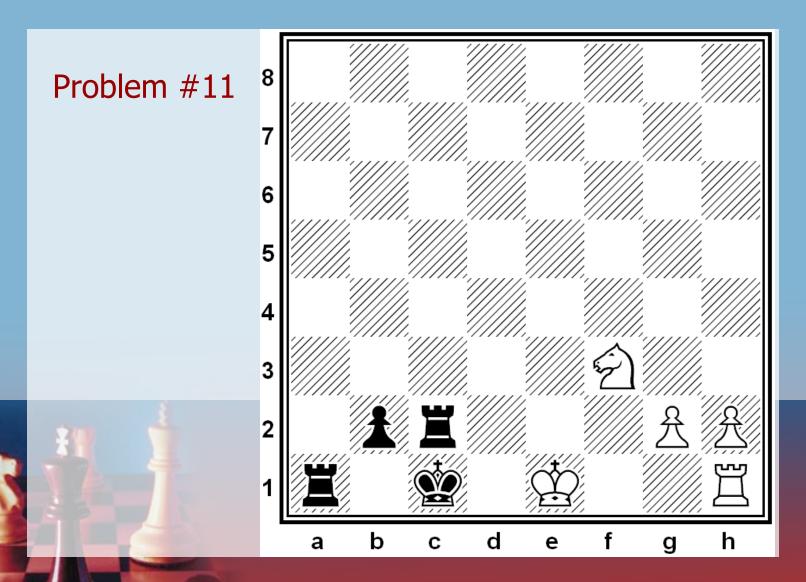
Problem #6

Problem #7 6 b

Problem #8 6 4 d а

Problem #9 6 4 d



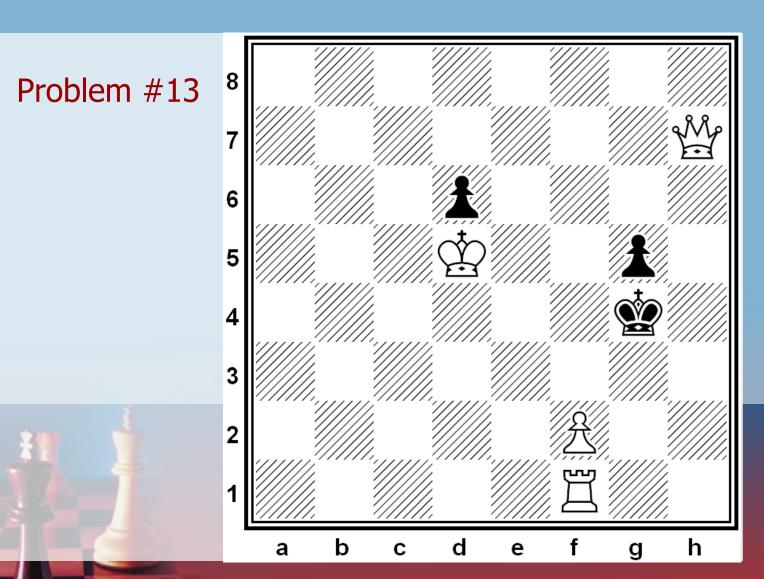


Problem #12 6 4

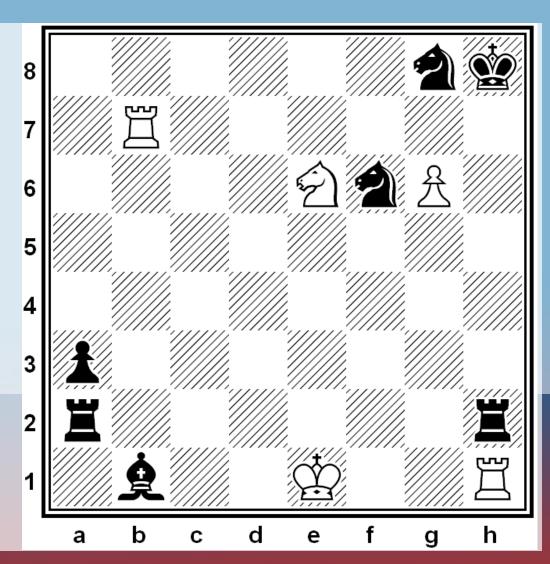
а

d

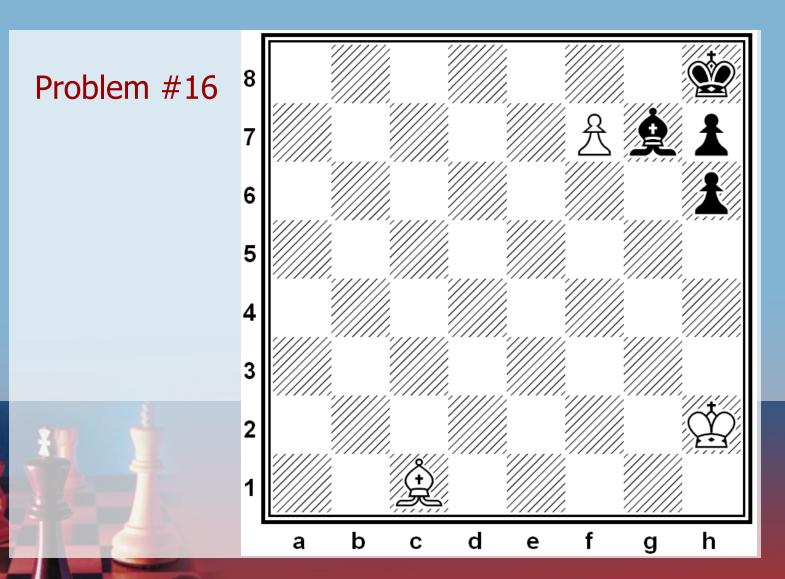
h



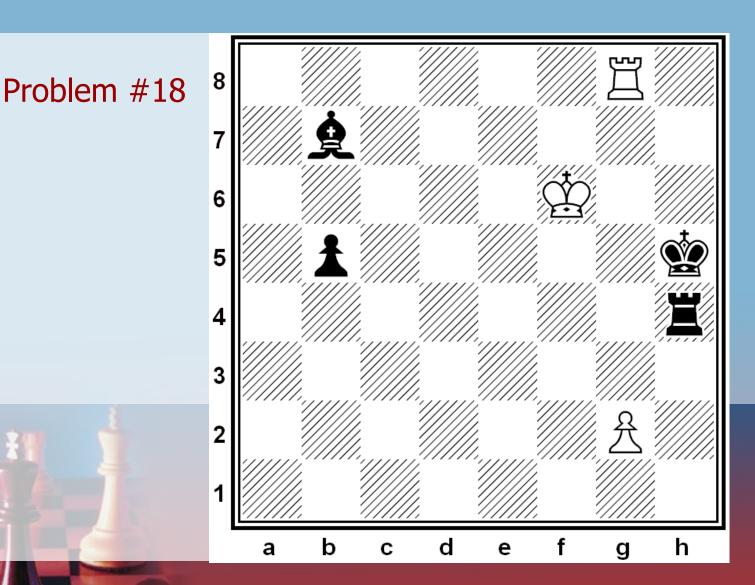
Problem #14



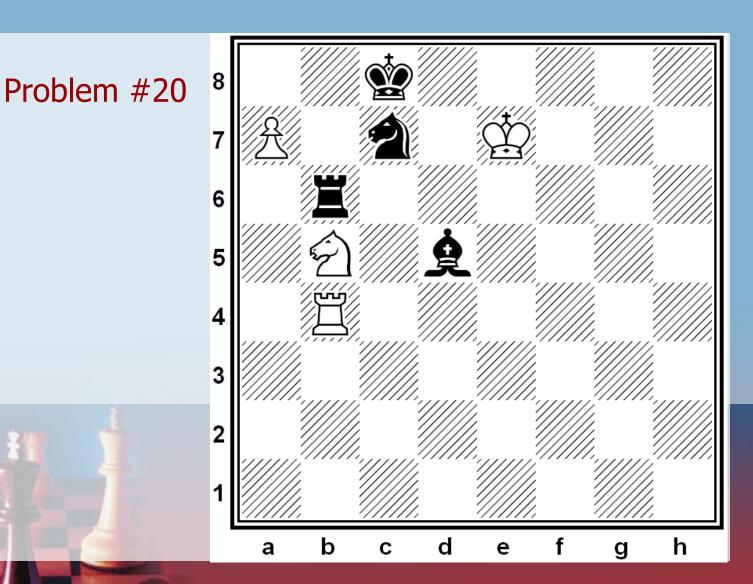
Problem #15 6 4 b d h а

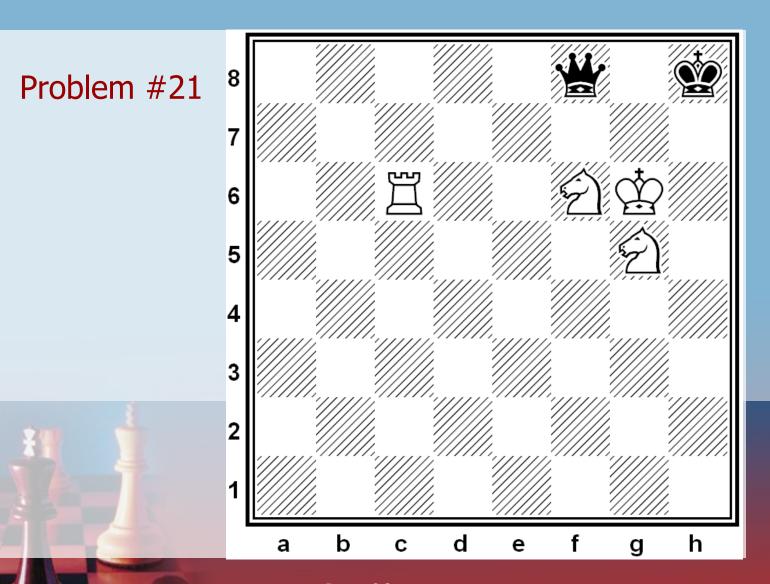


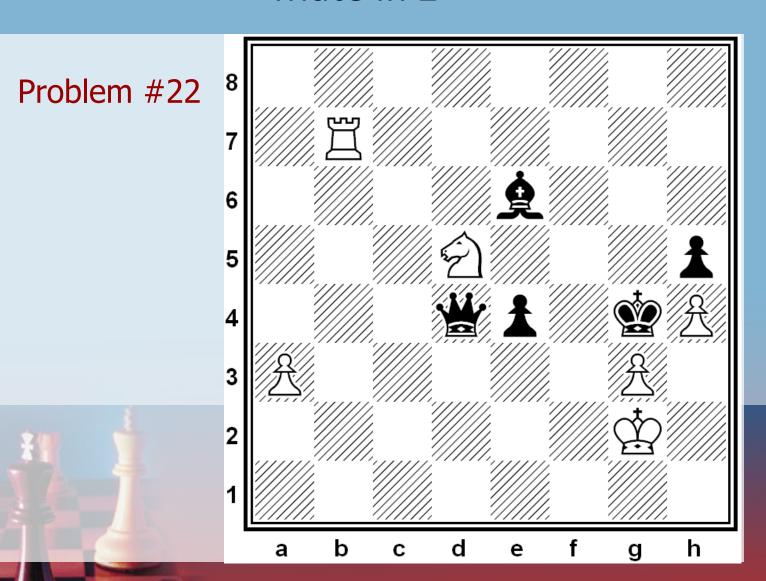
Problem #17 6 h d a b g



Problem #19 6 h d а

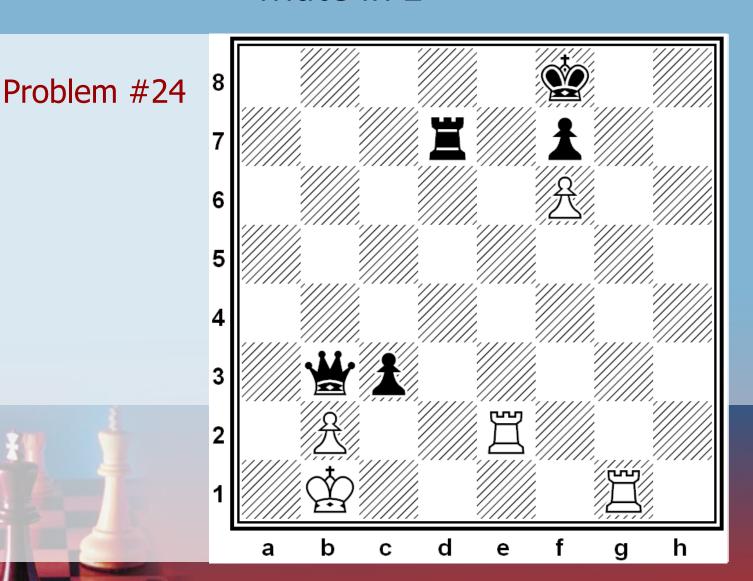


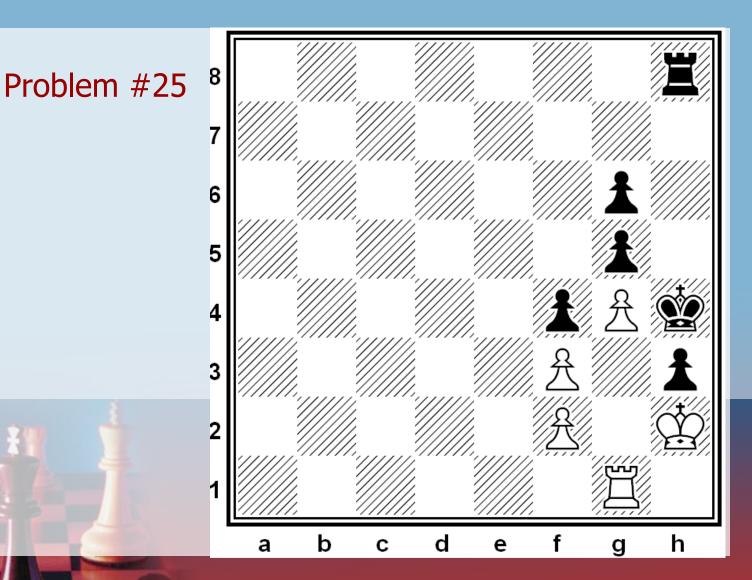


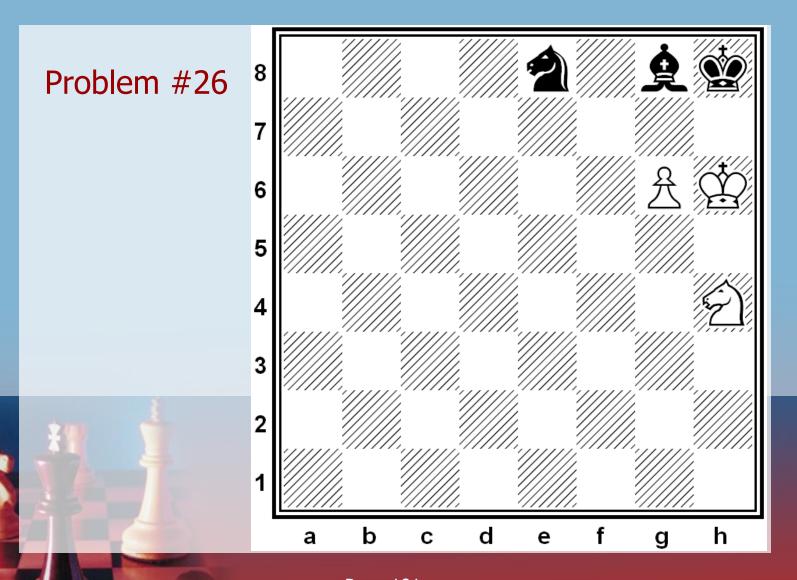


Problem #23 6

d







Problem #	Solution
1	1. Bf6#
2	1. cxb4#
3	1. Qxg8#
4	1. d8Q# (or d8R#)
5	1. Bc7#
6	1. Nf6#

Problem #	Solution
7	1. c5#
8	1. Rh8#
9	1. Ra5#
10	1. Qc6#
11	1. 0-0#
12	1. Rxb7+ Ka8 2. Nb6#
13	1. Qe4+ Kh5 (or Kh3) 2. Rh1#

Problem #	Solution
14	1. Rh7+ Nxh7 2. g7# (or 1. Rh7+ Rxh7 2. g7#)
15	1. Nc7+ Rxc7 2. Nd6#
16	1. Bb2 Bxb2 2. f8Q#
17	1. e8Q Nxe8 2. Bf5#
18	1. g4 Rxg4 2. Rh8# (or 1. g4 Kh6 2. Rh8#)
19	1. Qc8+ Kxc8 2. Nd6# (or 1. Nd6+ Ka6 2. Qa5#)
20	1. Nd6+ Rxd6 2. Rb8#

Problem #	Solution
21	1. Rc8 Qxc8 2. Nf7#
22	1. Rg7+ Qxg7 2. Ne3# (or 1. Rg7+ Kf5 2. Rg5#)
23	1. Rxb5 Rxb5 2. Nc4# (or 1. Rxb5 Nxb5 2. Nc4#)
24	1. Re8+ Kxe8 2. Rg8#
25	1. Rg3 fxg3 2. fxg3# (or 1. Rg3 R(any) 2. Rxh3#)
26	1. g7 Nxg7 2. Ng6#