

SARGON III



The Ultimate in Computer Chess

by Dan and Kathe Spracklen

HAYDEN SOFTWARE

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SARGON III COMPUTER CHESS

by
Dan and Kathe Spracklen

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INTRODUCTION

Organization of the User's Guide

The primary purpose of this user's guide is to instruct you in the operation of the game. Additionally, this guide contains chapters designed to increase your enjoyment of both chess and computer chess, extending beyond the basics of the program's operation.

The following is an outline of the information contained in this user's guide:

Section 1—Playing Chess

This section provides the new owner with the minimum information needed to get the program running and playing chess. It includes instructions from the U.S. Chess Federation on the basic rules of chess designed to help the beginner get started. It also contains cross-references to information on some of the most commonly used optional features.

Section 2—Special Features

All of the special features that are available in the SARGON III chess program are presented in this section.

Section 3—Great Games

Your SARGON III chess program comes with a selection of 107 historical chess games which were played by the greatest players of all time. Each game can be called up from disk and reviewed at your leisure. In this section, Life Master Boris Baczynskyj briefly describes each game, noting his reasons for including it in this anthology.

Section 4—Chess Problems

Written for the newcomer to chess by Boris Baczynskyj, this section provides an introduction to the strategy and tactics of chess. A series of chess problems is provided for your enjoyment. Like the Great Games, the Chess Problems can be called up from the disk and solved at your own pace. These problems range in difficulty from very simple to quite challenging, but each individual problem teaches a single chess idea.

Design Philosophy

The design of the feature package for the SARGON III chess program was based on the assumption that you should be able to access any feature easily, but you should not have to concern yourself with features which are not of interest to you. To this end, the features are available by the use of control keys.

Upon loading, SARGON III is ready to play a game of chess. The level is automatically set to SARGON's fastest response time (about five seconds per move), and SARGON assumes that you want to play with the White pieces. At this point, all you need to know to begin a game of chess with SARGON is how to enter your moves (see Section 1—Playing Chess).

Later on, you will want to learn about all of the innovative features which the SARGON III program has to offer. This manual need not be read from cover to cover, but rather can be sampled gradually as you expand your repertoire of commands.

SECTION I PLAYING CHESS

Let's Play Chess

Summary of the Official Rules of Chess reprinted with permission of the U.S. Chess Federation © 1978, 1983 U.S. Chess Federation.

Chess is a game for two players, one with the "White" pieces and one with the "Black"—no matter what colors your set actually uses. At the beginning of the game, the pieces are set up as pictured below.



A couple of hints will help you remember this setup:

1. Opposing Kings and Queens go directly opposite each other.
2. The square in the lower right corner is a "White" one ("White on right").
3. The White Queen goes on a light square, the Black Queen on a dark square ("Queen on color").

The main goal of chess is to checkmate your opponent's King. The King is not actually captured and removed from the board like other pieces. But if the King is attacked ("checked") and threatened with capture, it must get out of check immediately. If there is no way to get out of check, the position is a checkmate, and the side that is checkmated loses.

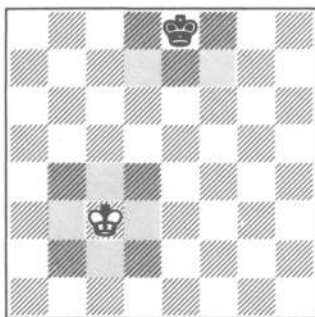
We will look further at pieces and checkmates a little later.

The Pieces and How They Move

White always moves first, and then the players take turns moving. Only one piece may be moved at each turn (except for "castling," a special move that is explained later). To capture or "take," move your piece to a square occupied by one of your opponent's pieces. The opponent's piece is then taken off the board, and your piece is left on that square.

You don't have to make a possible capture unless it is the only legal move available.

You cannot move a piece to a square already occupied by one of your own pieces. Except for Knights, pieces can move only along unblocked paths. Of course, they can capture or "take" the blocking piece if it is the opponent's.

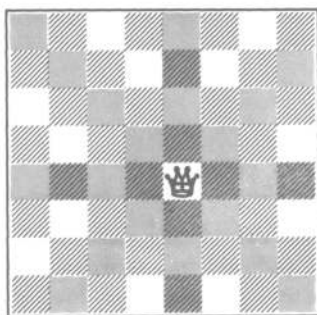


The King

The King is the most important piece. When he is trapped, his whole army loses.

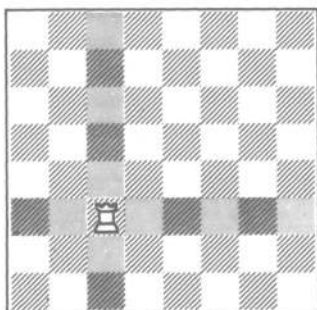
The King can move one square in any direction—for example, to any of the shaded squares in this diagram. (The only exception is castling, which is explained later.)

The King may never move into check—that is, into the line of fire of an opponent's piece.



The Queen

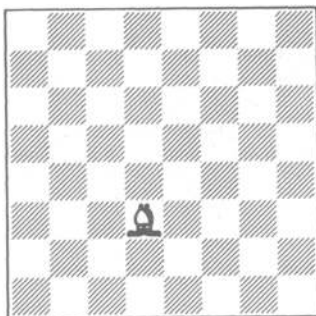
The Queen is the most powerful piece. She can move any number of squares in any direction—horizontal, vertical, or diagonal—if her path is not blocked. She can reach any of the shaded squares in this diagram.



The Rook

The Rook is the next most powerful piece.

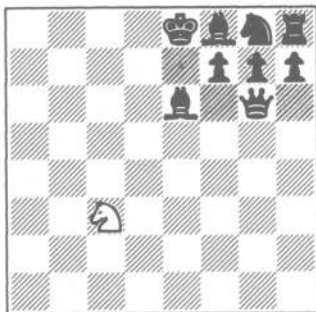
The Rook can move any number of squares vertically or horizontally if its path is not blocked.



The Bishop

The Bishop can move any number of squares diagonally if its path is not blocked.

Note that this Bishop starts on a White square and can reach only other White squares. At the beginning of the game, you have one "dark-square" Bishop and one "light-square" Bishop.

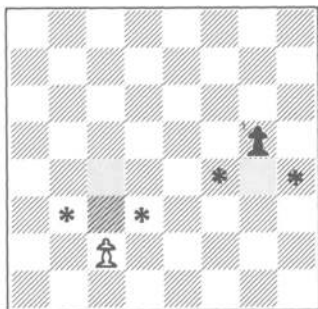


The Knight

The Knight's move is special. It hops directly from its old square to its new square. The Knight cannot be blocked by other pieces between its old and new squares.

You can think of the Knight's moves as an "L." It moves two squares horizontally or vertically and then makes a right-angle turn for one more square. The Knight always lands on a square opposite in color from the square it "hops" from.

Any pieces "hopped over" are *not* captured by the Knight's move. The Knight can capture only when "landing" on the enemy piece.



The Pawn

The pawn moves straight ahead (never backward), but it captures or "takes" diagonally. It moves one square at a time, but on its first move it has the *option* of moving forward one or two squares. (Historically, this option was introduced to speed up the game a little.)

In the diagram above, the shaded squares indicate possible destinations for the pawns. The White pawn is on its original square, so it may move ahead either one or two squares. The Black pawn has already moved, so it may move ahead only one square now.

The squares on which these pawns may capture are indicated by the symbol *.

If a pawn advances all the way to the opposite end of the board, it is immediately "promoted" to another piece, usually a Queen. It cannot remain a pawn or become a King. Because of this rule, it is possible, for example, for each player to have more than one Queen or more than two Rooks, Bishops, or Knights on the board at the same time.

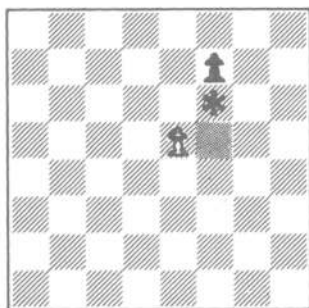
As soon as a pawn is "promoted" it has all the powers of its new self. For example, a pawn may become a Queen that immediately "gives check" to the opponent's King.

Special Moves

En Passant

This French phrase is used for a special pawn capture. It means "in passing," and it occurs when one player moves a pawn two squares forward to try to avoid capture by the opponent's pawn. The capture is made exactly as if the player had moved the pawn only one square forward.

In the diagram below, the Black pawn moves to the shaded square. On its turn the White pawn can capture the Black one by moving to the square marked with a *. If the White player does not exercise this option immediately—before playing some other move—the Black pawn is safe from "en passant" capture for the rest of the game. But new opportunities arise with each other pawn in similar circumstances.



Castling

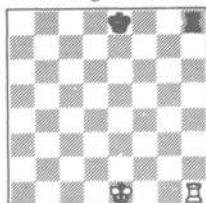
Once during a game, each player can "castle" if certain conditions are met. Castling is a special move that lets a player move two pieces at once—his King and one Rook. In castling, the King moves two squares to its left or right toward one of his Rooks. At the same time, the Rook involved goes to the square right beside the King and toward the center of the board.

In order to castle, neither the King nor the Rook involved can have moved before. Also, the King cannot castle out of check, into check, or through check. Further, there cannot be pieces of either color between the King and the Rook involved in castling.

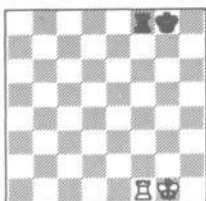
Castling is often a very important move because it allows you to place your King in a safe location, and it also allows the Rook to become more active.

When the move is legal, each player has the choice of castling King-side or Queen-side or not at all, no matter what the other player chooses.

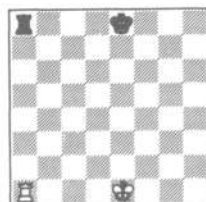
The diagrams below show what happens:



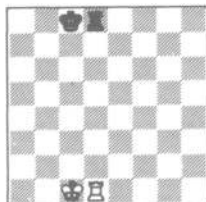
Before Kingside Castling



After Kingside Castling



Before Queenside Castling



After Queenside Castling

More About Check and Checkmate

Now that you know how the pieces move, you can understand more about check and checkmate. Your opponent is trying to checkmate your King, and you must avoid this situation if possible. You cannot move into check—for example, move into a direct line with your opponent's Rook if there are no other pieces between the Rook and your King. Otherwise the Rook could "capture" the King, which is not allowed.

If you are in check, there are three ways of getting out:

1. Moving the King away from the attack;
2. Capturing the attacking piece;
3. Placing one of your own pieces between the attacker and your King.

If a checked player can do none of these, he is checkmated and loses the game.

If a King is not in check, but that player can make no legal move, the position is called a *stalemate* and is scored as a *draw* or tie.

Some Hints to Get You Started

Some pieces are more valuable than others, because they are able to control more squares on the board. Obviously, for example, a Queen is more valuable than a pawn.

The question of value is important every time there is a possibility of capturing or exchanging pieces. Following is a guide to the value of the pieces other than the King:

Pawn, 1 point • Knight, 3 points • Bishop, 3 points • Rook, 5 points • Queen, 9 points

There are also some general principles that will help you to win games. After you practice for a few games, you will find that these hints are part of you, and that you do not have to work at remembering them.

- Try to capture more valuable pieces than your opponent does. The player with stronger pieces has better winning chances.
- Capture more valuable pieces with less valuable ones.
- Don't try for a checkmate in the first few moves—it probably won't work.
- Control the center. Move your center pawns early, but not the pawns on the side.
- Move your Knights and Bishops early.
- Castle early.
- Pieces in the center have more mobility than pieces on the sides. (Look back at the Knight diagram and see how the White Knight has more possible moves than the Black one.)
- Every time your opponent moves, stop and look carefully. Did he attack one of your pieces? Can you defend it or save it from capture? Did he make a move that allows you to capture something?
- Your opponent has a plan, too!
- It takes more than one piece to checkmate.

Getting Better

These basic rules and pointers are enough to get you started in chess. Now you are ready to find partners among the millions of chess lovers across the country and around the world.

Practice will make you better and better at the game and so will reading some of the countless books about chess. You can probably find some of these books at your local library or bookstore. They will tell you lots about various winning strategies.

Another source for all your chess needs is the U.S. Chess Federation, a nonprofit educational and instructional corporation and the official organizing body for chess in this country. The U.S. Chess Federation publishes the monthly magazine *Chess Life*, containing news, instruction, and other articles about chess, including a monthly list of tournaments that even beginners can play in.

The U.S. Chess Federation also offers a national rating system, postal chess competitions, and a mail-order department with a large selection of chess books and equipment.

The last page of this manual is an offer to join the U.S. Chess Federation at a special introductory rate.

Chess Notation

The U.S. Chess Federation recognizes two forms of chess notation—algebraic and descriptive. Algebraic notation is named from its use of algebraic coordinates to name each square.

The horizontal rows of squares (known as ranks) are numbered 1 through 8 from White's side of the board. The vertical rows of squares (known as files) are lettered "a" through "h" from White's left to right. Each square is named by cross-referencing the number and the letter. Thus, the black square in White's lower left-hand corner is "a1." The black square in Black's lower left-hand corner is "h8."

To record a move in algebraic notation, all you need to know is the initial of the piece (except for pawns) and the square on which it lands. A variation of algebraic notation is often used by SARGON III in which the piece itself is not named, but rather its initial location is given. Thus, moving the pawn in front of the King two squares forward would be written as "1.e4" in algebraic notation, but written as "1.E2-E4" in SARGON III algebraic notation. Moving a Queen from the c4-square to the e2-square would be written as "2.Qe2" in algebraic notation, but written as "2.C4-E2" by SARGON III.

In certain cases, SARGON III will record moves in a form which is different from the move you typed into the computer. Although a castle is entered in computer algebraic notation by naming the FROM and TO squares for the King, SARGON will record the move in traditional chess notation as "0-0" for King-side and "0-0-0" for Queen-side. When a pawn is captured en passant, the move is entered in computer algebraic notation as the FROM and TO squares for the pawn. SARGON will represent this move in traditional chess notation as "PXPEP." The move which advances a pawn to the opposite end of the board will have the notation "/Q." If you would like to promote the pawn to a Queen, simply press RETURN. To promote the pawn to a different piece, enter the appropriate letter (N for Knight, R for Rook or B for Bishop) and press RETURN.

Hardware Requirements

To play SARGON III, you will need an Apple II, II Plus, IIe or IIc with at least 48K of memory, a video monitor and a disk drive. A mouse or joystick is optional.

Loading Instructions

Connect your Apple, disk drive and video monitor together with the correct cables. (Make sure the Apple is turned OFF.) Plug the Apple into an appropriate power source. Insert the SARGON III chess program side of the disk (with the "SARGON III" label facing up) into

the disk drive and close the drive door. Turn the Apple ON. If the load is successful, the title screen will appear.

After a brief pause while the Apple loads the SARGON III program from the disk, the screen will display the title page:

```
----- SARGON III -----  
BY DAN AND KATHE SPRACKLEN ----- LEVEL 1  
COPYRIGHT (C) 1983 ----- HAYDEN BOOK COMPANY, INC.  
-----  
PLAYER SARGON
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1

This display is referred to as the "text screen" of SARGON III. To see the display of the actual chess board in high resolution graphics, press the ESC key.

To get back to the text screen, press the ESC key again. You may switch back and forth between the text screen and the graphics screen at any time during the operation of the program.

Game Messages

The text screen will provide you with a running list of all the moves played in each game. This screen is also used to print messages such as "CHECK," "CHECKMATE," and "ILLEGAL MOVE." These messages will always appear on the screen's message line (the line which shows "COPYRIGHT (C) 1983, HAYDEN BOOK COMPANY, INC." when you first start up the program).

When you are viewing the graphics screen which contains the chess board, however, you will merely get an indication that the computer has written a message, rather than seeing the actual message on the screen. The computer indicates that it has written a message by flashing the "message light" (the small hour-glass figure located in the lower right-hand corner of the screen). This figure will flash to attract your attention each time a message is first printed. To see what the flashing figure looks like, press CTRL-N (request for a new game). At this point, you will also hear the disk drive make a brief whirring sound.



Playing Chess with SARGON III

SARGON III is ready for a game of chess the moment it finishes loading. It is automatically set on its lowest playing level (Level 1), and it assumes that you are going to play White (to change the playing level or color, see Section 2 — Special Features). Since White always makes the first move, at this point SARGON III is waiting for you to make your move.

Moves can be entered by using the keyboard, a mouse or a joystick. To enter moves with the keyboard, type in the FROM square, then a dash (or a space), and then the TO square. Squares are typed in using the algebraic coordinates—first type in the letter from A-H, giving the file; then type in the number from 1-8, specifying the rank. Note: If you are using an Apple IIe or IIc, make sure that the CAPS/LOCK key is depressed.

For example, to move the King's pawn up two squares, type in E2-E4 and press the RETURN key to enter the move into the computer. If you are looking at the graphics screen, you will see the pawn flash on its original square; then it will flash on its destination square. If you are viewing the text screen, you will see the cursor move along with each character typed, and the cursor will disappear when the RETURN key is pressed. A pause will then follow, during which the text display will not change at all—this pause occurs because the computer is taking time to make its move on the graphics screen.

You can also use a mouse or joystick to play SARGON III. To invoke the mouse/joystick mode, enter CTRL-K. The pointer will appear on the screen. All of SARGON's special features are still accessible with the same commands, however, you cannot enter your moves on the keyboard while in the mouse/joystick mode. To make your move, place the pointer on the piece you would like to move and click the mouse or press the joystick button. Then place the pointer on the destination square and click the mouse or press the joystick button again. The piece will flicker and move to its new square. To exit the mouse/joystick mode, enter CTRL-K again. You can switch between the keyboard and mouse/joystick mode at any time during the game.

SARGON's Response

As soon as you have entered your move and SARGON has displayed it, the program will sound a beep tone and will display its countermove. The move that SARGON makes will be chosen at random from its library of opening variations (see Section 2—Special Features for a discussion of the opening book).

Notice that at this point the message light is off, and the message line is clear.

To continue playing the game, simply enter your move each time it is your turn to play. At some point, SARGON will exhaust its opening library in the variation you are playing; the program will then begin thinking for itself. At Level 1, the level currently set, SARGON will take an average of about five seconds per move. If you play many moves from book, SARGON may take longer at first, since it has already saved some time on the moves it played automatically.

While SARGON is thinking, an asterisk (*) will flash in the upper right-hand corner of the text screen. When SARGON has decided on a move, it will sound a beep tone and will display its move. The cursor will then flash to remind you to enter your next move. Note that the asterisk does not stop flashing at this point—this is due to the fact that SARGON has already started thinking about the next move it will make. You can stop SARGON from thinking on your time by entering CTRL-E (see Section 2—Special Features for a discussion of the Easy Mode).

New Game

In order to terminate the current game and begin a new one, press CTRL-N. SARGON will ask you to confirm your request with a Yes ("Y") or No (any key). If you enter "Y," the text screen will be cleared, the cursor will be set to move 1, and the pieces will be restored to their original locations on the graphics screen.

Exiting the Program

To get out of the chess program completely, enter CTRL-Q. SARGON will display the message "QUIT CHESS?" in the message line. To get out of the program, enter "Y" for Yes. Entering any other key at this point (except the ESC key) will return you to normal game play. Pressing the ESC key will merely switch the screens from text to graphics, and SARGON will continue to wait for your answer.

If you answer "Y" to the "QUIT CHESS?" inquiry, the disk that is currently in your normal boot drive will be booted. If the SARGON III program side of the disk is still in the drive, you will get back into the chess program.

Other Features

SARGON III has quite an exciting array of special features that may interest you. Some of the features you might want to learn about first include Level Select, Changing Sides with SARGON, Inverting the Board Display (Black on the bottom), and Taking Back Moves. Section 2—Special Features contains a detailed explanation of each of these options.

SECTION 2

SPECIAL FEATURES

The features included in your SARGON III chess program have been designed to increase your enjoyment of the game. They are easy to use and clearly organized so that any feature may be easily accessed without complicated references to other feature selections.

The features in this section are arranged according to function. You may want to skim through this section to see which features interest you most, and then later explore the others. Each feature is described independently of the rest. If you have read Section 1—Playing Chess, the first two features listed below will already be familiar to you.

1. NEW GAME (CTRL-N)

In order to terminate the current game and start a new one, press CTRL-N. SARGON will ask you to confirm your request with a Yes ("Y") or No (any key). If you enter "Y," the move list area will be cleared, the cursor will be set to move 1, and the pieces will be restored to their original locations.

2. EXITING THE PROGRAM (CTRL-Q)

To get out of the chess program completely, enter CTRL-Q. SARGON will display the message "QUIT CHESS?" in the message area. To get out of the program, enter "Y" for Yes. Entering any other key at this point will return you to normal game play.

If you answer "Y" to the "QUIT CHESS?" inquiry, the disk that is currently in your normal boot drive will be booted. If the SARGON III program side of the disk is still in the drive, you will get back into the chess program.

3. LEVEL SELECT (SHIFT-1 to SHIFT-9)

SARGON III has nine different levels of play. The levels increase in difficulty and in the amount of time taken per move. Levels may be selected or changed at any time during the game, as long as it is your turn to move. To select a level, press and hold the SHIFT key while you press down one of the number keys (from 1 to 9).

The levels and their average response times are shown in the following chart:

LEVEL	AVERAGE RESPONSE TIME	ACTUAL TIME CONTROLS
SHIFT-1	5 seconds per move	60 moves/5 minutes
SHIFT-2	15 seconds per move	60 moves/15 minutes
SHIFT-3	30 seconds per move	60 moves/30 minutes
SHIFT-4	1 minute per move	60 moves/1 hour
SHIFT-5	2 minutes per move	30 moves/55 minutes
SHIFT-6	3 minutes per move	40 moves/1 hr 50 min
SHIFT-7	6 minutes per move	30 moves/3 hours
SHIFT-8	10 minutes per move	40 moves/6 hrs 40 min
SHIFT-9	Infinite Level	No limit

SARGON maintains a time "budget." For each level, there are a certain number of moves which must be made within a fixed time frame. If SARGON goes over the average time on any particular move, that time is subtracted from its budget and the remaining moves will be played more quickly. If SARGON gains time by playing moves from its opening library or thinking on your time, the time saved up is distributed over the remaining moves. SARGON can then take a little longer on those moves.

Since the Apple does not have an internal real-time clock, SARGON has to estimate the amount of elapsed time. While SARGON is thinking, it flashes an asterisk in the upper right-hand corner of the text screen. Every time SARGON turns that asterisk on or off, it thinks that one second has gone by. This enables you to check the accuracy of SARGON's timing. Within the accuracy of SARGON's "clock," SARGON will always make the stated number of moves within the stated time for any level selected.

INFINITE LEVEL (SHIFT-9)

Level 9 is unlike any of the other levels. When this level is selected, SARGON has no time limit whatsoever for its moves. It will continue to think indefinitely, unless one of the following conditions occurs:

1. The position is contained in SARGON's opening library.

2. The move is forced, i.e., it is the only legal move in that position.
3. SARGON sees a forced mate against itself or its opponent.
4. SARGON's search is terminated (see Feature 4, Terminate Search).

Because SARGON halts its search when mate is found, Level 9 is the ideal choice for solving mate problems.

4. TERMINATE SEARCH (CTRL-T)

By entering CTRL-T, you may halt SARGON's search at any time while it is thinking about which move to make. SARGON will then play the best move it has found up to that point. Handy for the impatient player, this command is vital to the Infinite Search Level (see Feature 3), since it is one of the only ways SARGON will stop its search at that level. This feature is also convenient if you accidentally enter the wrong move and wish to take it back (see Feature 7, Taking Back Moves). By entering CTRL-T, you can stop SARGON's search at once, take back the error and continue playing.

5. CHANGING SIDES WITH SARGON (CTRL-S)

If you would like to play with the Black pieces and let SARGON play White, you must use the Changing Sides command, CTRL-S. If you enter CTRL-S at the start of a new game, SARGON will play the first move as White and you will be playing Black.

If you enter CTRL-S during a game, SARGON will take over with your pieces where you left off, and you will have SARGON's pieces. You may change sides with SARGON at any point in the game, as long as it is your turn to move. You may also change sides as often as you wish. By entering CTRL-S after every move, you can watch SARGON play against itself.

6. INVERT BOARD (CTRL-I)

When you play a game of chess with an actual chess set, you set up the board so that the pieces of your color are on the side of the board facing you. When you play chess with SARGON, you may accomplish this by placing the pieces of your color at the bottom of the display screen.

To switch the color shown at the bottom of the screen, simply enter

CTRL-I (Invert Board). The graphics screen will show the pieces in the opposite configuration and the message light will start flashing. Checking the text screen at this point will reveal the message "BOARD INVERTED."

Note that inverting the board display does not affect the color of the pieces you are playing—it merely affects the display. To actually change colors with SARGON, see Feature 5, Changing Sides with SARGON.

You may reverse the board display as often as you like whenever it is your turn to move. You may even want to invert the board while you are considering which move to make so that you can see things from your opponent's point of view.

7. TAKING BACK MOVES (CTRL-B)

You may take back moves that have already been played in the game whenever it is your turn to move. Entering CTRL-B reverses the last move played on the board, either a Black or a White move. If you have just taken back SARGON's last move, you may now: (a) request that SARGON reconsider its move, perhaps at a different search level (enter CTRL-S after entering CTRL-B to activate SARGON's search tree, but remember, SARGON might not change its mind); (b) substitute a move of your choice instead of the move that SARGON made (SARGON will accept your chosen move without complaint); or (c) continue taking back moves. If you have just taken back one of your own moves, you may make any move of your choice at this time, or you can continue taking back moves.

You may take back as many moves as have been played in the game, all the way back to the initial position if so desired. If you have set up a position using Analysis Mode, you may take back all of the moves which have been played from that position (see Feature 18, Analysis Mode).

When you take back moves, SARGON will automatically check to see if you have backed up to a position that is within its opening library. If so, the opening book will automatically be reconnected (see Feature 20, The Opening Library).

8. OFFER SUGGESTED MOVE (CTRL-O)

If you would like SARGON to suggest a move for you to make, simply enter CTRL-O. A move suggestion will be available whenever the opening book is connected (see Feature 20, The Opening Library), and whenever SARGON has completed a move search. When the opening book is connected, SARGON's suggested move will be a move from the opening library. You can request an alternate move suggestion, and SARGON will select another move from the opening library if it has another move

which it considers "good." The suggested move feature is available from Verify Mode as long as the position is in the opening book (see Feature 10, Verify Mode).

When SARGON suggests a move for you to make after it has just completed a move search, the move it suggests is the response that its search has shown to be the strongest for you. Occasionally, at Level 1, SARGON will not be able to offer a move suggestion even after completing a move search. If no move suggestion is available, this indicates that SARGON did not have time in its search to consider all of your possible replies to its move choice. However, in general, move suggestions will almost always be available at Levels 2 and above, and they will sometimes be available at Level 1.

SARGON indicates its move suggestion by first flashing the piece to be moved and then flashing the square to which you should move the piece. To accept SARGON's move suggestion, simply enter the move as it is shown on the move list and press RETURN.

9. EASY MODE (CTRL-E)

The use of the Easy Mode with any level will weaken SARGON's play at that level. Using the Easy Mode effectively doubles the number of skill levels available to you. Normally, SARGON III uses the time you take to decide on a move to think about its own next move. Thus, if you have selected Level 1 (5 seconds per move for SARGON), but you take two minutes to decide on your next move, SARGON has used your two minutes to consider its next reply. You might as well have set it on Level 5! When Easy Mode is invoked, SARGON is blocked from using your move next time to think about its next response.

When Easy Mode is in effect, the letter "E" appears after the level number on the text screen. To cancel Easy Mode and return to the normal levels, enter CTRL-E again. The "E" will vanish, and SARGON will again be free to think on your time.

10. VERIFY MODE (Two Players) (CTRL-V)

The Verify Mode enables SARGON to act as a "referee" between two human players. SARGON checks each move for legality, maintains a move list, and can save or print the game that has been played (see Feature 14, Print List of Moves, and Feature 16, Save Game to Disk).

While in Verify Mode, SARGON III can suggest moves for you to make from its opening library (see Feature 8, Offer Suggested Move, and Feature 20, The Opening Library). It can also take over and make a move for either side on command. Enter CTRL-S to ask

SARGON to make the next move at the current level selected. To suggest a move, SARGON must first be allowed to make a move (CTRL-S) in order to activate its search tree. Once SARGON has moved, the two humans are back in control of the game.

Verify Mode is especially handy for setting up a position which occurs near the beginning of the game of chess. Simply select Verify Mode, play the desired sequence of moves and then cancel Verify Mode. You are now ready to play chess from the chosen position. In addition, SARGON will follow along in its opening library as you play the moves; thus, if the position is in its book, SARGON will be ready to play from book.

11. ZAP BEEPER (CTRL-Z)

Entering CTRL-Z will turn the beeper tone off. A second CTRL-Z will turn the tone back on again. This feature can be activated as many times as desired during a game.

12. DRAW OFFER (CTRL-D)

SARGON will automatically announce draws by:

STALEMATE
REPETITION OF POSITION
50-MOVE RULE

In addition, you may offer SARGON a draw at any point in the game. For SARGON to be able to reply, it must have just completed a search. Therefore, if you have just taken back a move (see Feature 7, Taking Back Moves), or if you have just set up a position for play (see Feature 18, Analysis Mode), SARGON will have no basis upon which to decide whether or not to accept your offer. In such cases, the program will automatically decline the draw offer.

13. REPLAY GAME (CTRL-R)

This option allows you to review the current game in memory. The board is initially set up as it would be for a new game, and SARGON will await your input. The following keystrokes are defined for this mode:

- RETURN — SARGON will display the next move that was played in the game.
- ESC — Switches back and forth between the move list on the text screen and the graphics screen.
- CTRL-F — Cancels Replay Mode and moves you forward in the game to the last move played.

CTRL-X — Cancels Replay Mode and leaves you in the current position.

CTRL-N — Cancels Replay Mode and starts a new game.

While Replay Mode is in effect, SARGON will print the letter "R" in place of the Level Number on the text page.

14. PRINT LIST OF MOVES (CTRL-P)

Using the Print List option will enable you to print a listing of all the moves of the game currently in memory. In addition, if the game began from a position set up in Analysis Mode (see Feature 18), SARGON will first print the starting position, and will then go on to print the move list. To make sure your printer is on and on-line, you will be prompted with "PRINTER ON?" immediately after entering CTRL-P. Press "Y" for Yes to get a printout, or press any other key to abort the procedure.

15. WRITE BOARD TO PRINTER (CTRL-W)

Entering CTRL-W will cause SARGON to print the current board position. To make sure your printer is on and on-line, you will be prompted with "PRINTER ON?" immediately after entering CTRL-W. Press "Y" for Yes to get the board printout, or press any other key to abort the procedure.

16. SAVE GAME TO DISK (CTRL-G)

Entering CTRL-G allows you to store the current game in memory onto a floppy disk. Any normal DOS formatted disk will be adequate for this purpose, provided there is space available on the disk and the disk is not write-protected. To format a disk, insert the DOS disk into the disk drive. After it boots, remove the DOS disk and insert a blank disk. Enter the command "INIT HELLO." When the drive light goes off, the disk has been formatted. A game requires only three sectors of free space, so 161 games can be stored on a single diskette.

When CTRL-G is entered, the screen will be cleared and the following message will appear:

```
SAVE GAME TO DISK
ENTER NAME OF GAME
:
```

At this point, you may enter a game identification string, a catalog request or a command to abort the save. A game identification string has the following format:

```
:<name of game> [,Ss] [,Dd]
```

A name must be from 1 to 28 characters in length. Any typeable character except the comma (,) may appear in the name, and the name may begin with any character. When the file is saved to disk, the name you typed in will be preceded by a "G." The following are all examples of legal file names:

```
1/24/83
#*%#&* I LOST THAT ONE!
FIRST GAME
```

The slot and drive specifications are optional and follow standard DOS format. If you type in a name for your game that is longer than 28 characters, the name will be truncated to 28 characters and any slot and drive specifications following the name will be ignored.

If you are using the same slot and drive for your game save as the SARGON III disk is in, you will be prompted to remove the SARGON III disk and insert the disk on which you would like to store the game. After the save function has been completed, you will again be prompted to switch disks. When the SARGON III program side of the disk is back in place, you will be returned to the game at the forward-most position that was reached.

If you are using a different slot or drive for your game save than the SARGON III disk uses, the game will be saved as soon as you enter the game identification string. After the save has been completed, you will automatically be returned to the game at the forward-most position that was reached. The next time you save or load a game, SARGON will automatically use the same slot and drive as you last requested.

A catalog request will list the saved chess games on the active disk. It has the following format (again, slot and drive specifications are optional):

```
:CATALOG [ ,Ss] [ ,Dd]
```

As above, if the slot and drive are the same as those used by the SARGON III disk, you will be prompted to change the disks.

It is also possible to abort the save and return to the current game. To do this, simply enter a RETURN without specifying a file name.

17. LOAD GAME FROM DISK (CTRL-L)

This command allows you to retrieve a game previously stored on disk. The Load command is invoked by entering a CTRL-L. The screen will be cleared, and the following message will appear:

LOAD GAME FROM DISK
ENTER NAME OF GAME
:

At this point, you can request a catalog to review the contents of the disk by entering the CATALOG command, you may abort the load by hitting RETURN without specifying a file name or you may enter the name of a game.

The slot and drive specifications are optional and follow standard DOS format. If you type in a name for your game that is longer than 28 characters, the name will be truncated to 28 characters and any slot and drive specifications following the name will be ignored.

If you are using the same slot and drive for your game load as the chess program disk is in, you will be prompted to remove the SARGON III program disk and insert the disk from which you would like to load the game. After the load function has been completed, you will again be prompted to switch disks.

If you are using a different slot or drive for your game load than the SARGON III program disk uses, the game will be loaded as soon as you enter the game identification string. The next time you save or load a game, SARGON will automatically use the same slot and drive as you last requested.

Once the game is loaded, SARGON assumes that you want to replay the game, and thus the program automatically transfers you to Replay Mode (see Feature 13, Replay Game). If you would rather resume play from the final position, entering CTRL-F at this point will bring you to the last move of the stored game.

18. ANALYSIS MODE (CHANGE BOARD) (CTRL-A)

Analysis Mode allows you to change the position on the current game board, or to set up an entirely new position. When CTRL-A is entered, the display automatically switches to the graphics screen, and the current board position is shown with the square in the lower left-hand corner of the display flashing continuously. The flashing square acts as a cursor. The cursor can be moved left and right, up and down, by the following keys:

KEY	CURSOR DIRECTION
→	Moves the cursor to the right
←	Moves the cursor to the left
;	Moves the cursor up
/	Moves the cursor down

The cursor will wrap around the edge of the board and return on the other side. The square that the cursor rests on is the square that is subject to change at that moment. The possibilities are:

KEY	FUNCTION
K	Places a King of the default color on the square.
Q	Places a Queen of the default color on the square.
R	Places a Rook of the default color on the square.
B	Places a Bishop of the default color on the square.
N	Places a Knight of the default color on the square.
P	Places a Pawn of the default color on the square.
C	Changes the default color (which is initially White). If the square is occupied, the piece on that square takes on the new default color.
SPACE BAR	Clears the square.
RETURN	Exits from Analysis Mode and returns to normal game play.

Analysis Mode does some error checking of the position before it exits. If you set up a position with two Queens, for example, but you also include all eight pawns, SARGON will get rid of one of the Queens or one of the pawns. Exactly which piece SARGON will take off the board depends upon the position. Pieces on their starting squares will always stay on the board, and other pieces are assigned from the center out. If the position you set up is missing one or both Kings, SARGON will announce "STALEMATE." If you set up a position that is logically impossible, SARGON will not always be able to respond.

SARGON always assumes that a King or Rook on its original square has never moved, and assigns castle status accordingly. When you exit Analysis Mode, both the color to move and the playing level remain the same as they were when you entered this mode. If desired, the color to move can always be changed using the Change Color command (see Feature 19).

19. CHANGE COLOR WITH THE MOVE (CTRL-C)

In the game of chess, moves are made in turn. White plays first, then Black, then White again. No side may "pass" its turn to move, even if it is unfavorable to play. (If one side is forced into a disadvantageous situation because of the obligation to move, chess players say the player is caught in "zugzwang," a German word which literally means "forced move.") SARGON III gives you a way out of such a situation by offering the opportunity of changing the color with the move. This is, of course, cheating; however, the

Change Color with the Move command has the legitimate function of letting you specify the side whose turn it is to play after setting up a position using Analysis Mode (see Feature 18).

When you enter CTRL-C, SARGON assumes that you still want control, so it does not begin to think; instead, it also switches sides with you, so that it is still your turn. If you want SARGON to keep its original color and play the next move, enter CTRL-S to change sides with SARGON (see Feature 5, Changing Sides with SARGON).

20. THE OPENING LIBRARY

The opening library is a collection of Grand Master moves, beginning from the starting position of a game of chess and proceeding along variations that have been deeply analyzed.

The SARGON III chess program has an opening library of over 68,000 different positions distributed over 52 files on the main program side of the disk. This is by far the largest collection of opening moves ever supplied with a commercial chess program, and it samples the entire range of opening possibilities.

The opening library functions automatically, as long as the SARGON III program side of the disk is in the boot drive of your system. The program looks for information on this disk at several points during the game, so it is imperative that you keep the main program side in place throughout the game (unless you are saving a game to a disk or loading a game from a disk.)

21. CANCEL OPENING LIBRARY (CTRL-Y)

Entering CTRL-Y will disable the opening library, thereby forcing SARGON to think for itself from the first move of the game or from the point in the game when the command was issued.

22. WINDOW ON THE SEARCH (CTRL-J)

When you enter CTRL-J, you will have the opportunity to see SARGON's move search in action. As long as SARGON remains in its opening book, the display will remain the same:

```
----- SARGON III -----  
----- WINDOW ON THE SEARCH -----  
  
PREVIOUS DEPTH      CURRENT DEPTH  
SCORE               SCORE
```

However, once SARGON starts thinking on its own, this display comes alive. The right-hand side of the display shows what is happening in the current search. The depth shows how many ply (half-moves) it has looked ahead, and the score shows how well it thinks it is doing. A positive number indicates that SARGON thinks it is ahead; a negative number indicates that SARGON is behind. The scores are relative to a pawn being worth 100 points. Therefore, score values in the range of +99 to -99 usually indicate positional factors; and scores of over 100 usually mean that material has been won or lost. A checkmate score is ± 9999 . If mate has been foreseen, but has not yet occurred, the number will be reduced slightly, according to how far off the mate is.

In order for you to see the rest of the display, SARGON must actually be thinking. To see an example of this, do the following: Enter CTRL-Y to cancel the opening book, enter SHIFT-9 to put SARGON on the Infinite Level, and enter CTRL-S to change sides with SARGON. You will notice that suddenly moves will begin to appear in the two columns on the right-hand half of the screen.

The column on the far right will be changing rapidly—here you are watching SARGON going up and down the search tree, examining moves. The column will grow and shrink in length, sometimes reaching many times the number shown as the Current Depth. This is the capture search in action. SARGON will not rest and evaluate any position unless it has first resolved any captures possible and reached a calm, quiescent position.

The column just to the left of that column is less active. Every now and then a new line appears. This column represents the best line that SARGON has found so far in its search. If you were to enter CTRL-T to terminate SARGON's search at a particular point, the move that heads this column would be the move that SARGON would play. The second move on this list would be SARGON's suggested move for you. From this, you can see that the suggested moves are not quite so deeply searched as the move that SARGON itself chose. It follows, then, that if you were to play nothing but the suggested moves, you would probably lose.

Now enter CTRL-T to stop the search. You will notice that the moves from the best line column have been copied over to the left-hand side of the screen. The Previous Depth that is now shown on the left-hand side is the depth that SARGON had reached when you entered the CTRL-T; and the Score now shown is the score which SARGON had computed up to the point when you entered CTRL-T.

The left-hand column of the screen is stable. It shows you the results of the previous search. All of the moves that SARGON has been able to foresee are listed there (up to a maximum of 9 ply). The other two columns are busily at work, since SARGON has assumed that you will make the suggested move and is already thinking about its response.

To exit from the search display, press the ESC key. This will put you back into the normal chess program.

CAUTION: Using the Window on the Search feature will slow the program down by about 5 to 10% while the window display is on the screen. As soon as you switch back to the text screen or the graphics screen, the program will resume normal speed.

SECTION 3

GREAT GAMES

The following 107 historical chess games were selected and briefly described by the American chess master Boris Baczynskyj. They are contained on the Great Games and Chess Problems side of the disk in your SARGON III package. Each game can be retrieved from this side of the disk and reviewed move-by-move to show you how master chess champions played some of their finest games.

To access the Great Games, use the Load command (CTRL-L, Feature 17). After entering CTRL-L, the screen will be cleared and the following message will appear:

```
LOAD GAME FROM DISK
ENTER NAME OF GAME
:
```

Remove the disk and turn it from the SARGON III side to the Great Games and Chess Problems side. Reinsert the disk with the Great Games and Chess Problems label facing you.

At this point, you can request a catalog to review the contents of the Great Games and Chess Problems side of the disk by entering the CATALOG command, you may abort the load by hitting RETURN without specifying a file name or you may enter a file name. As you will notice all of the Great Games file names are in the following format:

```
: GAME102
```

The number is the same as in the descriptions below and there is no space between the word "GAME" and the number.

The slot and drive specifications are optional and follow standard DOS format.

If you are using the same slot and drive for your game load as the SARGON III program side of the disk is in, you will be prompted to remove the chess program side and insert the Great Games and Chess Problems side of the disk. After the load function has been completed, you will again be prompted to switch sides.

If you are using two drives and do not want to switch disks, it is possible to copy the Great Games and Chess Problems onto a properly formatted blank disk. See the instructions on p. 23 (Feature 16, Save Game to Disk)

for formatting a blank disk. (NOTE: It is not possible to copy the SARGON III program side of the disk.) The game will be loaded as soon as you enter the Great Game name and specify the appropriate slot and drive. The next time you save or load a game, SARGON will automatically use the same slot and drive as you last requested.

Since you are reviewing a game, SARGON III assumes that you want to be in Replay Mode (see Feature 13, Replay Game). Use the RETURN key to see each move of the game. The command CTRL-N will cancel Replay Mode and begin a new game.

1. Anderssen—Kieseritsky, London, 1851.

"The Immortal Game"—it is the most renowned sonnet from the Romantic Age of chess. Anderssen sacrifices half a boxful of his pieces, then finishes Black off with a pretty mate.

2. Anderssen—Dufresne, Berlin, 1852.

"The Evergreen Game"—the final Queen sacrifice deflects the Black King to a square where it will be subject to a fatal check. But, did Black have a more effective move at his 19th turn? Dispute on this point continued well into the 20th century.

3. Paulsen—Morphy, New York, 1857.

White allows Black to blockade his development with 12... Qd3, then overlooks the necessity of playing 16... Qa6. A move later, it is too late, and Morphy unleashes one of his famous combinations.

4. Schuiten—Morphy, New York, 1857.

Morphy sacrifices a couple of pawns to open lines for his better-developed pieces. Instead of returning some material in the interest of mobilization, Black greedily holds onto it. The punishment is swift.

5. Morphy—Duke of Braunschweig and Count Isouard, Paris, 1858.

This game was played in the European nobles' loge during a performance of "The Barber of Seville." The American pounces on the amateur's neglect of development: a few final hammer blows and the Black King's coffin is closed while he is still on his original square.

6. Morphy—Lowenthal, London, 1858.

The American genius offers a Queen-side pawn at the altar of initiative, then advances his King-side pawns to rip apart Black's King position. After White's 33rd move, Black is in "zugzwang"—any move he makes loses something.

7. Englisch—Steinitz, London, 1863.

Not a spectacular game, but a methodical demonstration of play with the two Bishops. At the end, Steinitz exchanges into a precisely calculated won pawn ending.

8. Anderssen—Steinitz, London, 1866.

An intense struggle with many twists and turns. Finally, Steinitz achieves a pawn-up ending, but his winning chances are problematic until White misplaces his Knight on the 51st move.

9. Zuckertort—Blackburne, London, 1883.

White's cascade of unexpected shots from move 23 until the game's end, ten moves later, was labeled by Steinitz as "one of the greatest combinations, possibly even the most beautiful of all that have been created on the chess board."

10. Chigorin—Steinitz, Havana, 1892.

The brilliant, and tragic, Father of Russian Chess produces a crush in his romantic fashion. Typically, instead of the straightforward (and strong) 19.a5, Chigorin plays the much more complicated, and riskier, sacrifice 19.Nf7.

11. Steinitz—von Bardeleben, Hastings, 1895.

Steinitz catches Black's King in the center, then sacrifices a pawn at d5 so that his Knight can advance into the heart of Black's position. Black never resigned at the game's end; he just left the playing hall while Steinitz demonstrated the forced win.

12. Pillsbury—Tarrasch, Hastings, 1895.

Tarrasch called Pillsbury "a meteor of the chess sky." White's dynamic play here did much to popularize the Queen's Gambit for years to come.

13. Fleissig—Schlechter, Vienna, 1895.

A brilliancy by the Austrian player who came very close to dethroning Lasker as World Champion in a 1910 match. Black sacrifices material repeatedly, then crowns his effort with an artistic checkmate.

14. Pillsbury—Lasker, St. Petersburg, 1896.

The game that Lasker considered the best of his long and glorious career. The combinational attack on the King initiated by Black's 17th move is one of the prettiest in chess heritage.

15. Lasker—Napier, Cambridge Springs, 1904.

A taut and complex game in which one tactical shot follows another. The complications do not stop until move 28 when White emerges with a positional advantage which he soon converts into a pawn.

16. Rotlewi—Rubinstein, Lodz, 1907.

A nova that will blind for as long as the game of chess is played. Rubinstein explodes with a precisely calculated combination in which every one of his pieces plays a part.

17. Tarrasch—Lasker, World Championship Match, Düsseldorf, 1908.

Facing the doctrinaire Doctor, Lasker launches his Rook on an unorthodox cruise, during which it is in danger of being trapped. Such a sally must have irked Tarrasch, but the Rook survived, and Black won the point.

18. Lasker—Janowski, World Championship Match, 1909.

The temperamental challenger outplays the World Champion Lasker. White's fatal mistake is the weakening of the King's position with his 44th pawn move.

19. Marshall—Capablanca, Match, U.S.A., 1909.

Not a complex game, but a fine demonstration of purposeful vs. planless play. Capablanca obtains a Queen-side pawn majority. While White shuffles to and fro, the great Cuban's moves all fit into a mosaic that produces a passed pawn and victory.

20. Rubinstein—Lasker, St. Petersburg, 1909.

Rubinstein sees just a move further than the World Champion to win a pawn, then plays an exemplary Rook-and-pawn ending.

21. Tarrasch—Schlechter, Match, 1911.

White, whose books taught generations of chess players, sacrifices a pawn for the initiative. Then he launches a tightly-calculated pawn storm of his opponent's King position.

22. Nimzovich—Tarrasch, St. Petersburg, 1911.

Tarrasch demonstrates the strength of "hanging pawns" when backed up by superior mobility: one of them advances at the proper moment as a prelude to a double Bishop sacrifice, denuding White's King of pawn cover.

23. Rubinstein—Capablanca, San Sebastian, 1911.

Capablanca misplays the opening, and White secures a positional edge. Soon, a sparkling combination converts it into a pawn.

24. Rubinstein—Spielmann, San Sebastian, 1912.

Spielmann, the Theoretician of Sacrifices, offers a whole Rook to drive White's King into the open. To avoid a quick death, White is forced to give back the material. Then Black transposes into a won King and pawn endgame.

25. Lasker—Capablanca, St. Petersburg, 1914.

Lasker chooses the apparently unpretentious Exchange Variation of the Ruy Lopez. Gradually, White gains a space advantage, and posts his Knight at e6. The inevitable breakthrough follows, and White's pieces infiltrate into Black's camp.

26. Janowski—Capablanca, New York, 1916.

Handed the open a-file and the two Bishops, Capablanca squeezes the life out of White's position in textbook fashion.

27. Capablanca—Marshall, New York, 1918.

The game in which Marshall introduced his gambit against the Ruy Lopez. Although surprised, White calculates his way past all the torpedoes hidden in the position until his ship is able to fire a few—now decisive—shots back.

28. Lasker—Capablanca, World Championship Match, Havana, 1921.

One of Capablanca's victories in wresting the World Title from Lasker. The new World Champion described the game as "one of my best achievements, in a battle with one of the strongest chess players of all peoples and all times."

29. Alekhine—Sterk, Budapest, 1921.

After Black's pieces get tied down on the Queen-side, Alekhine lands several sudden blows to produce a decision on the other side—where the King is.

30. Bogolyubov—Alekhine, Hastings, 1922.

A "full-board," epic struggle crowned by Black's two original queening combinations—one initiated on the 30th move, and the other—an echo—on the 47th.

31. Tarrasch—Alekhine, Pistyan, 1922.

Black sacrifices a pawn in the opening for a dominant central position, then lets go with everything heading toward White's King. Like many of Alekhine's attacking efforts, this one won the tournament brilliancy prize.

32. Maroczy—Tartakower, Teplice Sanov, 1922.

Black makes an intuitive Rook sacrifice on his 17th turn. Only then does he finish his development to reinforce his attack. Although White has the time, he cannot find the means to construct a defense.

33. Saemisch—Nimzovich, Copenhagen, 1923.

Nimzovich's immortal Zugzwang Game. At the game's conclusion, White is a piece up, but a move by any piece will lead to material loss. So, he resigns.

34. Reti—Lasker, New York, 1924.

Played in the most famous tournament ever held on American soil, this game illustrates a fascinating clash of approaches to central control: Black's classical pawn center is countered by White's "hyper-modern" set-up of impinging on the center with pieces parked inside one's camp. Here, Lasker, and the older view, triumph.

35. Reti—Bogolyubov, New York, 1924.

Black chooses an inferior system against White's Reti Opening played by the author. The final, sparkling White move lays bare Black's back rank weakness.

36. Tartakower—Capablanca, New York, 1924.

Tartakower did not lack a sense of humor: he played an obscure variation of the King's Gambit against the World Champion. The advantage became Black's on the 9th move; the game is crowned with an irrefutable attack against the exposed White King.

37. Marshall—Bogolyubov, New York, 1924.

Marshall, the great tactician who was U.S. Champion for many years, earned a brilliancy prize for this game.

38. Reti—Alekhine, Baden-Baden, 1925.

Alekhine, whose games included more beautiful combinations than those of any other player, considered this his best combination. Indeed, the attack initiated by Black's startling 26th move does not let up until White, faced with the loss of a piece, resigns.

39. Johner—Nimzovich, Dresden, 1926.

Nimzovich sets up his defense to the Queen's pawn opening, and saddles White with doubled pawns. Then he provides an excellent example of his blockade. Note Black's piquant Queen maneuver to h7, and the manner in which he limits all possible White pawn advances.

40. Nimzovich—Capablanca, New York, 1927.

White exchanges pieces, angling for a draw. But White's pawn position has a few holes in it, and Black sends his pieces through them.

41. Capablanca—Alekhine, World Championship Match, Buenos Aires, 1927.

Capablanca's best achievement in the marathon match which ended with him stripped of the world crown by the Russian challenger.

42. Capablanca—Alekhine, World Championship Match, Buenos Aires, 1927.

Black does not equalize until his 28th turn. But then Capablanca, still dreaming of an edge, over-presses and lands in an inferior heavy piece ending. The concluding phase of the game is technically difficult, but Alekhine meets the challenge.

43. Sultan Khan—Menchik, Hastings, 1931-32.

A win by the first Women's World Champion. Castling is on opposite wings, and Black comes in with her attack before White even has a chance to start his.

44. Rauzer—Botvinnik, Leningrad, 1933.

Ignoring the attack on his Bishop, Black executes the thematic Sicilian Defense thrust d6-d5, then follows up with a slashing onslaught on White's King.

45. Alekhine—Lasker, Zurich, 1934.

The great Russian champion produces a textbook example of how to use superior mobility and central predominance to force weaknesses in the opponent's position as a prelude to a decisive attack.

46. Lilienthal—Capablanca, Hastings, 1935.

A brilliant Queen sacrifice vs. the great Capablanca: it forces open the e-file as an avenue of attack against the Black King stuck in the center.

47. Euwe—Alekhine, World Championship Match, Amsterdam, 1935.

One of Euwe's victories in the match which made him World Champion. White gains an advantage in the opening, then transposes into an ending in which he has the edge because of a passed pawn and the two Bishops.

48. Alekhine—Reshevsky, Nottingham, 1936.

Reshevsky, who for half a century was at, or close to, the top of American chess, blunts Alekhine's attacking attempts, then outplays him in an ending.

49. Fine—Alekhine, Margate, 1937.

Fine, one of the best America produced, obtains a positional pull against Alekhine. As he is preparing to exploit it with a Queen-side attack, Black weakens his own position, winding up material down. A long endgame follows, but it is very one-sided.

50. Botvinnik—Alekhine, Netherlands, 1938.

The pawn position becomes symmetrical on move 11. But White has absolute control of the open c-file. Botvinnik converts that advantage into a couple of pawns that decide the endgame.

51. Botvinnik—Capablanca, Netherlands, 1938.

Botvinnik's most renowned game. With iron logic, even at the cost of a pawn, White sticks to his plan of a pawn advance in the center. Eventually, he obtains a passed pawn, then sacrifices a Bishop to deflect the Queen blocking its advance. When he made the piece offer, White had to calculate that, at the end, his exposed King could escape perpetual check.

52. Keres—Capablanca, Netherlands, 1938.

The young Keres out-combines Capablanca. The threat of a deadly King-side attack forces a two-pawn-plus endgame.

53. Botvinnik—Kann, Leningrad, 1939.

One of Botvinnik's many exemplary games which showed the chess world how to treat a particular opening system. Here, White aims to occupy Black's weak d5-square; the Bishop that lands there dominates the rest of the game.

54. Euwe—Keres, Netherlands, 1940.

Keres sacrifices a Queen and pawn for Rook and Bishop. Note the power of Black's Bishops at the game's end as they converge on White's King.

55. Smyslov—Reshevsky, Radio Match, USA-USSR, 1945.

This game illustrates the thoroughness of the opening preparation championed by Soviet players. White was familiar with the long forced opening sequence, while Black had to consume time to work out the moves over the board. An unusual material balance results; Smyslov's Rook and two Bishops triumph over the American player's Queen and pawns.

56. Euwe—Najdorf, Zurich, 1953.

A real melee in which material balance means little, but the initiative is paramount.

57. Geller—Najdorf, Zurich, 1953.

Geller provides a textbook demonstration of how a key strong square in the center can dominate a game. On move 19, White conceives the plan of occupying the d5-square, which cannot be controlled by a Black pawn. On move 32, the White Knight occupies the hole, and its superiority over the Black Bishop is the motif of the rest of the game.

58. Reshevsky—Bronstein, Zurich, 1953.

A full struggle in every phase: the opening, the King's Indian Defense, was fresh at the time, the middlegame is tense, and Black converts his advantage in the ending with a study-like finish. An original performance by Bronstein, who drew a 1951 World Championship Match with Botvinnik.

59. Botvinnik—Smyslov, World Championship Match, Moscow, 1954.

Botvinnik and Smyslov played three World Championship matches during the 1950's. In this game—from the first one—Botvinnik squeezes Black's pieces. Note how Black's Queen Knight does not get to move until the game is already decided.

60. Botvinnik—Smyslov, World Championship Match, Moscow, 1954.

Smyslov surprises Botvinnik with his 11th move. Then Black winds up with three minor pieces against the opposing Queen. Here the pieces are stronger, as they are able to converge in a coordinated cluster on White's King.

61. Donald Byrne—Fischer, New York, 1956.

This blinding brilliancy by the 13-year-old Fischer is known as "The Game of the Century." Starting with the salvo 11 ... Na4, Black has complete control of the game. Much later, Fischer labeled this as his best game. Indeed, the teenager saw everything.

62. Tal—Panno, Portoroz, 1958.

Tal sacrifices a Rook and two pieces for the Queen. But, the Black pieces are scattered around the board while White can zero in on a target—the g7-pawn. Black defends well in the unusual position, and reaches the shore of a drawn ending. But, then wearied by the long struggle, he makes a mistake on his 41st move, and loses.

63. Tal—Smyslov, Bled, 1959.

One of Tal's flashiest victories on the road to challenge Botvinnik for the world title. He offers a piece for a blazing attack on Black's King.

64. Tal—Fischer, Zagreb, 1959.

The young Fischer carelessly grabs a couple of irrelevant pawns on his 20th and 21st moves. Tal's punishment for this loss of time is a swift attack against Black's King.

65. Tal—Keres, Belgrade, 1959.

Keres achieves a powerfully centralized position. Then he converts his edge in a difficult endgame.

66. Botvinnik—Tal, World Championship Match, Moscow, 1960.

A game which generated much subsequent analysis. Tal introduces mind-boggling complications by sacrificing a Knight on his 21st move. Botvinnik, as many others, is unable to untangle the web woven by the Riga magician, and loses his way in the ensuing melee.

67. Geller—Korchnoi, USSR Championship, 1960.

This is the game that Korchnoi calls "dearest to my heart." Such a wide-open struggle requires tremendous energy for detailed calculation of variations. This is Korchnoi's forte; Geller falters on move 30, when Qg1 would have held the draw.

68. Smyslov—Bilek, Sochi, 1963.

A game quite typical of Smyslov's harmonious style. After a middlegame, conducted by White with brisk originality, Smyslov secures a winning endgame in which his active pieces dominate Black's jumbled-up army.

69. Petrosian—Botvinnik, World Championship Match, Moscow, 1963.

A wonderful demonstration of a strong Knight triumphing over a bad Bishop. Petrosian is one of the few players who regularly favors Knights in the minor piece derby.

70. Robert Byrne—Fischer, New York, 1963-64.

The highlight of Fischer's 11-0 sweep of the U.S. Championship. From a stodgy opening, Fischer produces an unexpected Knight sacrifice, exposing the White King to the full fury of Black's pieces.

71. Geller—Smyslov, Moscow, 1965.

A violent King-side attack by White: he offers his Queen four times, and each time it cannot be captured without immediate loss. At the fourth offer, Black has seen enough; he resigns.

72. Spassky—Petrosian, World Championship Match, Moscow, 1966.

Spassky has attacking notions in this game, but Petrosian seals off the lines to his King, and gradually prepares a powerful attack of his own. After 42.fg4, White is a Rook up, but his King is exposed to a fatal draft.

73. Petrosian—Spassky, World Championship Match, Moscow, 1966.

Petrosian loves to sacrifice the exchange. In this game he gets a chance to do it twice, all in the interest of getting to Black's King.

74. Larsen—Petrosian, Santa Monica, 1966.

Larsen surprises the then-World Champion with a Queen sacrifice, which leads to an overwhelming attack on Black's King.

75. Keres—Portisch, Moscow, 1967.

Portisch, for two decades Hungary's strongest player, outplays Keres in a prolonged minor piece ending—one of the best of its type in chess literature.

76. Stein—Keres, Moscow, 1967.

Stein took first in this, one of the strongest international tournaments ever. White achieves an overwhelming preponderance in the center.

77. Botvinnik—Portisch, Monte Carlo, 1968.

With his 16th move, Black thinks he has trapped White's Rook. But he's in for a surprise: Botvinnik sacrifices the exchange, then follows it up with another Rook offer, which cannot be accepted because of checkmate. The bared Black King cannot survive for long.

78. Smyslov—Liberzon, Riga, 1968.

White's 27th move is a sudden Queen sacrifice that introduces a strong King-side attack.

79. Smyslov—Tal, Moscow, 1969.

The game is placid until White unbalances it by exchanging his Bishop for Black's Knight. The resulting doubled pawns prove to be crucially weak in the endgame. A fine example of Smyslov's skill in that phase of the game.

80. Spassky—Petrosian, World Championship Match, Moscow, 1969.

Petrosian plays the opening lifelessly. Spassky achieves a predominance in the center and in piece mobility, then launches a murderous King-side attack.

81. Spassky—Petrosian, World Championship Match, Moscow, 1969.

Spassky secures a powerful passed pawn in the center. Black goes pawn hunting in search of compensation, but finds that he has nothing with which to stop the passer.

82. Polugayevsky—Tal, Moscow, 1969.

White sacrifices a central pawn to initiate a storming of the Black King. He follows up with a Bishop sacrifice, and Black is forced to exchange Queens to stave off mate. The ensuing ending is inferior for Black, then lost after an inaccuracy on move 28.

83. Larsen—Spassky, Match USSR—Rest of the World, 1970.

Larsen overdoes originality in the opening, and Spassky, with simple, classical moves, obtains a powerful position. Black sacrifices a piece to obtain a passed pawn, then throws a full Rook to gain a tempo for its advance. Surrounded by nothingness, White resigns rather than play his 18th move.

84. Fischer—Larsen, Palma de Mallorca, 1970.

Fischer misplays that most exciting of openings, the Velimirovic Attack in the Sicilian Defense, and soon is a piece down. This was the American's only loss in the Interzonal Tournament, which he dominated on the way to winning the World Championship from Spassky.

85. Fischer—Panno, Buenos Aires, 1970.

Playing one of his favorite set-ups—the King's Indian Attack—Fischer drives home a crisply logical King-side attack. Noteworthy is 28.Be4, allowing White's last idle piece to join the fray.

86. Fischer—Unzicker, Siegen Olympiad, 1970.

A strategically cohesive game: Fischer plays the Exchange Variation of the Ruy Lopez to secure a King-side pawn majority, then pushes those wing pawns up, and transposes into an easily won endgame.

87. Petrosian—Gligoric, Rovinj—Zagreb, 1970.

For many years the Yugoslav Grand Master Gligoric was one of the leading devotees of the King's Indian Defense. Here, he uses that complex modern system to generate a sacrificial attack against Petrosian's King.

88. Fischer—Petrosian, Buenos Aires, 1971.

A sparkling positional performance by the great American against the former World Champion.

89. Petrosian—Fischer, Buenos Aires, 1971.

The game that broke Fischer's string of 13 straight victories in the Candidates Matches. Black blunders on his 13th move, and Petrosian never gives him a second chance.

90. Fischer—Spassky, World Championship Match, 1972.

Fischer's best win from the match which resulted in his becoming the first American World Champion since Morphy. White's threats against Spassky's King win an exchange for a pawn. With flawless technique, Fischer drives his material advantage home.

91. Fischer—Spassky, World Championship Match, 1972.

For many years, Fischer was a forceful advocate of 1.e4 as the best way to start a chess game. But here he surprises the World Champion with a Queen's Gambit Opening, and plays it to perfection. At the game's end, Black is completely tied up, and can only watch helplessly as White prepares the winning breakthrough.

92. Spassky—Tal, Tallinn, 1973.

Tal's style lost some of its luster after he lost the World Championship back to Botvinnik in 1961. But, he remains the darling of chess fans around the world. And, occasionally the old dazzle returns—as it does here in his demolition of Spassky.

93. Spassky—Tukmakov, USSR, 1973.

In the sharp Najdorf Variation of the Sicilian Defense, Spassky sacrifices a Knight for pawns to expose Black's King to attack. White carries out a long siege; Black gives up the ghost when White's pawns advance to deny breathing space to the bereft King.

94. Larsen—Korchnoi, Leningrad, 1973.

White secures a broad center, but it is one subject to attack, and Korchnoi takes dead aim at it. White's last move is a blunder, losing a piece.

95. Karpov—Uhlmann, Madrid, 1973.

Playing his favorite line vs. the French Defense, Karpov infiltrates his Rooks into Black's position. Observe how helpless Black's Bishop is at game's end.

96. Karpov—Spassky, Leningrad, 1974.

Karpov emerges out of the opening with a more compact pawn structure and better piece mobility. The rest of the game is an illustration of how to use such advantages to infiltrate into the enemy camp.

97. Karpov—Korchnoi, Moscow, 1974.

When a game contains castling on opposite wings, there is usually a tense competition about whose attack will arrive first. White is the swifter here.

98. Browne—Bisguier, U.S. Championship, 1974.

The five-time U.S. Champion finds a new 14th move in an ancient variation. It works; the Rook ending that follows is not difficult for White to win.

99. Korchnoi—Petrosian, Sochi, 1974.

Korchnoi uses a central space advantage to defeat his bitter rival Petrosian.

100. Karpov—Kavalek, Nice, 1974.

A typical Karpov endgame squeeze on the first board of the USA-USSR Olympiad Match.

101. Karpov—Andersson, Milan, 1975.

Andersson, Sweden's strongest player, makes a speculative exchange sacrifice vs. the World Champion. The venture achieves success when Karpov erroneously accepts it, then commits another inaccuracy on move 35.

102. Ljubojevic—Andersson, Wijk aan Zee, 1976.

White, the brilliant Yugoslav champion, sacrifices a pawn with his 12th move, in a position where nobody has done it before. Wonderfully complex play follows: Black's pieces get tangled up on the Queen-side, and White is able to strike a few sharp blows against the Black King.

103. Tatai—Karpov, Las Palmas, 1977.

The World Champion sacrifices a pawn for long-term pressure, then breaks through to White's still centralized King with the brilliant shot 23 ... Qd3.

104. Alburt—Kasparov, USSR, 1978.

Played when Kasparov was 15, this game is a fine illustration of the Soviet phenom's complicated, energetic style. Possibly worn out by the tangled play, White falters on his 25th and 26th moves.

105. Kasparov—Palatnik, USSR, 1978.

A smashing King-side attack by the player, most likely to be next World Chess Champion.

106. Gaprindashvili—Dzindzhashvili, Wijk aan Zee, 1979.

The former Women's World Champion gains the advantage in a sharp opening variation, then converts it into a point with forceful endgame technique.

107. Chiburdanidze—Dvojris, USSR, 1980.

The Women's World Champion innovates in the much-studied position with the sacrifice 12.Nd5, and proceeds to blast through Black's defenses.

SECTION 4

CHESS PROBLEMS

Chess is a non-verbal game, but, paradoxically, it has spawned a literature more voluminous than any other game. All aspects of chess have acquired concepts, criteria and classifications. The experienced player selects his move after sorting through this web of knowledge to thread together the tapestry of each position.

CHESS PROBLEMS is a collection of positions, each with a solution in the form of a move or variation. A discussion, outlining the thoughts of an experienced player, follows each solution.

CHESS PROBLEMS does not aspire to be a complete primer of the game. Appended are a few recommended books, for those whose appetite for chess erudition is whetted.

The positions are grouped in five categories:

1. Checkmates—some typical ways of accomplishing the game's ultimate objective.
2. Openings—standard set-ups during the first phase of the game.
3. Tactics—common ways of getting the upper hand by constructing variations (i.e., I move here, he moves there, then I play this smashing move).
4. Strategy—the more permanent features of the position are highlighted here.
5. Endgames—a few standard stratagems from this last phase of the game.

In each problem (except for Openings, Problem 3), it is White to move. To access the following Chess Problems, use the load command (CTRL-L, Feature 17). After entering CTRL-L, the screen will be cleared and the following message will appear:

```
LOAD GAME FROM DISK
ENTER NAME OF GAME
:
```

Remove the disk and turn it from the SARGON III side to the Great Games and Chess Problems side. Reinsert the disk with the Great Games and Chess Problems label facing you. At this point, you can request a catalog to review the contents of the Great Games and Chess Problems side of the disk by entering the CATALOG command, you may abort the load by hitting RETURN without specifying a file name or you may enter a file name. As you will notice, the file names for the Chess Problems are in the following format:

```
: CHECKMATES5  
           or  
: TACTICS6
```

The number is the same as in the descriptions below and there is no space between the category (i.e., "Openings" or "Tactics") and the number.

The slot and drive specifications are optional and follow standard DOS format.

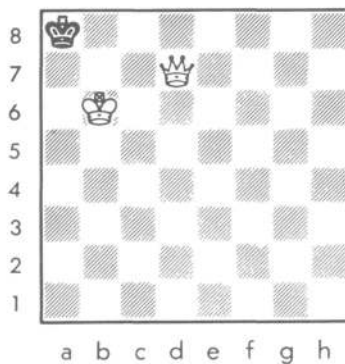
If you are using the same slot and drive for your game load as the SARGON III program side of the disk is in, you will be prompted to remove the chess program side and insert the Great Games and Chess Problems side of the disk. After the load function has been completed, you will again be prompted to switch sides.

If you are using two drives and do not want to switch disks, it is possible to copy the Great Games and Chess Problems onto a properly formatted blank disk. See the instructions on p. 23 (Feature 16, Save Game to Disk) for formatting a blank disk. (NOTE: It is not possible to copy the SARGON III program side of the disk.) The game will be loaded as soon as you enter the Chess Problem name and specify the appropriate slot and drive. The next time you save or load a game, SARGON will automatically use the same slot and drive as you last requested.

SARGON III assumes that you want to review the answer to the chess problem, so you are automatically placed in Replay Mode (see Feature 13, Replay Game). Use the RETURN key to see each move of the solution. Although the disk will only replay the primary solution to the problem, in many cases alternative solutions will be suggested in the textual descriptions below. If you decide that you would like to continue playing the game, you may cancel Replay Mode by entering the command CTRL-X. SARGON III will cancel replay Mode and leave you in the current position.

CHECKMATES

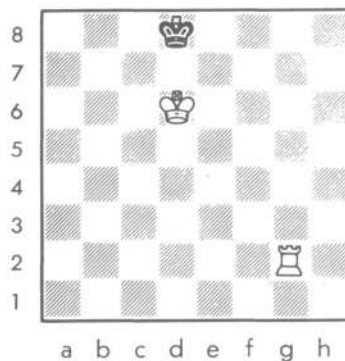
Checkmates: Problem 1



Solution: 1.Qa7, Qb7, Qc8, Qd8, or Qe8 checkmate

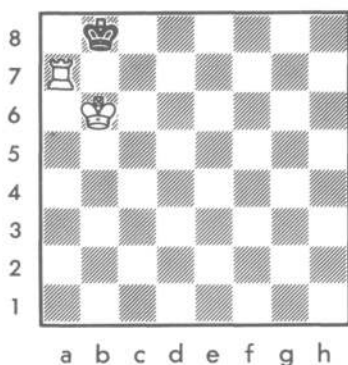
White has five different ways of checkmating the Black King. So many equivalent solutions are possible because of the Queen's great power and the unfavorable position of Black's King.

Checkmates: Problem 2



Solution: 1.Rg8 checkmate

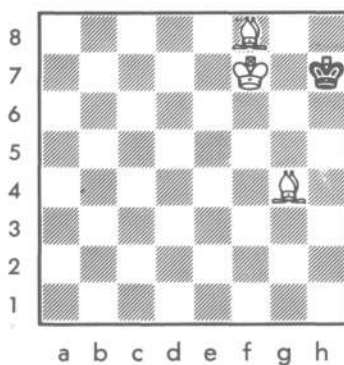
Checkmates: Problem 3



Solution: 1.Rc7 Ka8 2.Rc8 checkmate

In this position, checkmate cannot be delivered immediately. It is necessary to calculate that, after Rc7, Black has only one legal move: 1 ... Ka8, which allows checkmate by White on his next move.

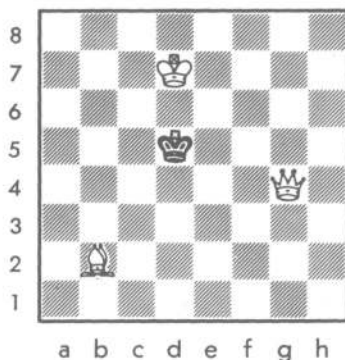
Checkmates: Problem 4



Solution: 1.Bf5+ Kh8 2.Bg7 checkmate

Here all three of White's pieces cooperate to deny every square to Black's cornered King.

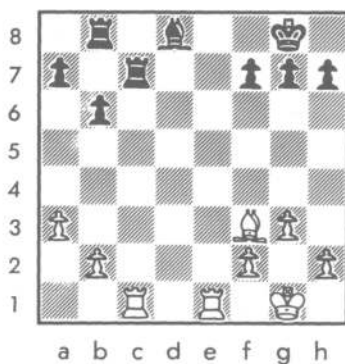
Checkmates: Problem 5



Solution: 1.Qd4 checkmate

White has many possible checks with the Queen, but there is only one checkmate.

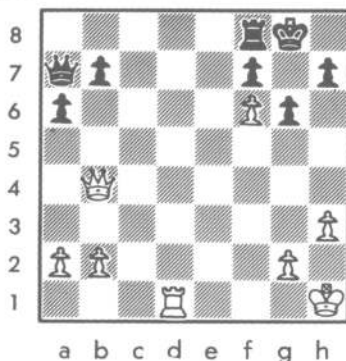
Checkmates: Problem 6



Solution: 1.Re8 checkmate

Black is weak on the back rank. Note that the mate would not be possible if any one of Black's King-side pawns (f7, g7, or h7 pawns) was on a square other than its initial square, or if Black's Bishop was in a different spot.

Checkmates: Problem 7



Solution: 1.Qxf8+ Kxf8 2.Rd8 checkmate

As in Problem 6, Black is weak on the back rank; but here two moves are required to expose that fatal weakness.

Checkmates: Problem 8



Solution: 1.Qd8+ Kxd8 2.Bg5++ (a) if 2... Ke8 3.Rd8 checkmate
(b) if 2... Kc7 3.Bd8 checkmate

White's first move sacrifices the Queen to deflect the King to a square where it is subject to a terrible double check by both Rook and Bishop. The Black King can flee two different ways—in both cases, it is checkmated.

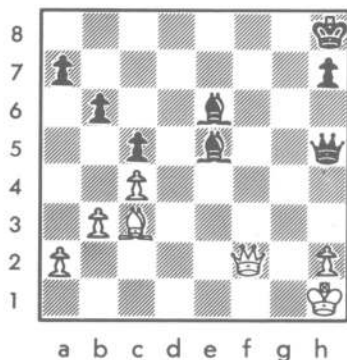
Checkmates: Problem 9



- Solution:** 1.Rxe4+ (a) 1 ... dxe4 2.Qe6 checkmate
 (b) 1 ... Kd6 2.Qe6 checkmate
 (c) 1 ... Kf7 2.Qe6 checkmate
 (d) 1 ... Kf6 2.Qe6 checkmate

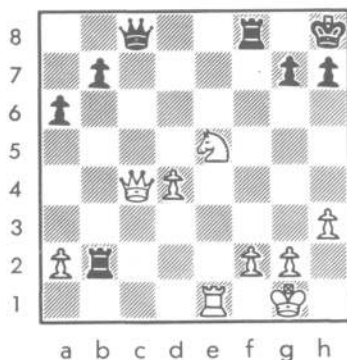
White forces checkmate in two moves by sacrificing the exchange to remove the key defender of Black's King. Note that Black being two pieces up has no bearing on the situation—his King is too exposed.

Checkmates: Problem 10



Solution: 1.Qf8+ Bg8 2.Qf6+ Bxf6 3.Bxf6 checkmate

Checkmates: Problem 11



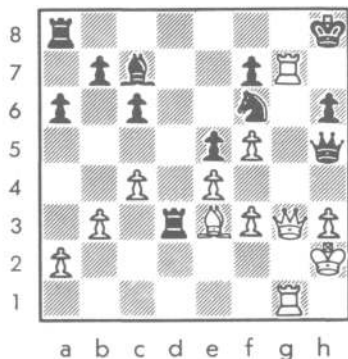
Solution: 1.Nf7+

(a) 1 ... Rxf7 2.Qxc8+ Rf8 3.Qxf8 checkmate

(b) 1 ... Kg8 2.Nh6++ Kh8 3.Qg8+ Rxg8 4.Nf7 checkmate

In variation (b), White sacrifices the Queen to force Black's Rook to occupy the only remaining square available to Black's King. This kind of checkmate is called smothered mate or Philidor's mate.

Checkmates: Problem 12



Solution: 1.Rh7+

(a) 1 ... Nxh7

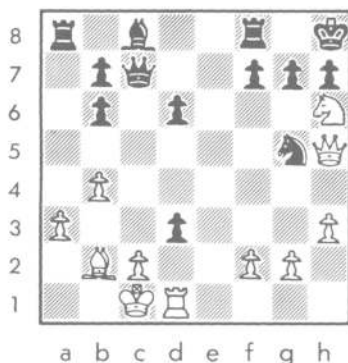
2.Qg7 checkmate

(b) 1 ... Kxh7

2.Qg7 checkmate

White's first move is a space clearance sacrifice, freeing the way for the Queen to administer mate.

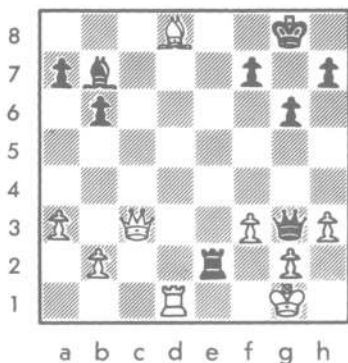
Checkmates: Problem 13



Solution: 1. Bxg7+ Kxg7 2. Qxg5+ Kh8 3. Qf6 checkmate

White exchanges a Bishop for a pawn to demolish a vital protector of Black's King.

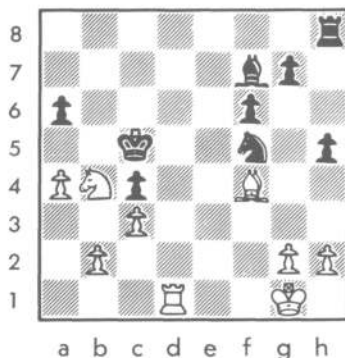
Checkmates: Problem 14



Solution: 1. Qh8+ Kxh8 2. Bf6+ Kg8 3. Rd8+ Re8 4. Rxe8 checkmate

White's King seems in mortal danger, but he turns the tables on Black by giving up the Queen to decoy Black's King to a square where it is subjected to an unsurvivable attack by White's remaining pieces.

Checkmates: Problem 15



Solution: 1.Rd6

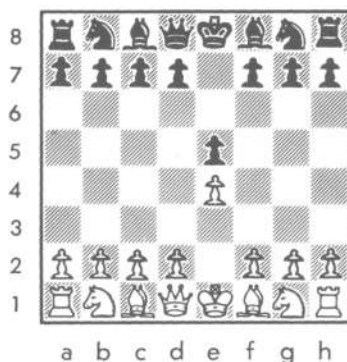
- | | |
|----------------|--|
| (a) 1 ... Nxd6 | 2.Be3 checkmate |
| (b) 1 ... Rc8 | 2.Nxa6 checkmate |
| (c) 1 ... Be8 | 2.Nxa6 checkmate |
| (d) 1 ... Bd5 | 2.Nxa6 checkmate |
| (e) 1 ... Ne7 | 2.Nxa6 checkmate |
| (f) 1 ... Nd4 | 2.Nxa6 checkmate |
| (g) 1 ... Ra8 | (or any other remaining
move) 2.Rc6 checkmate |

The basic idea of White's first move, revealed in variation (a), is the blockade of the d6-square so that the Black King has no access to it. Then the Bishop is free to administer checkmate, as the Knight no longer controls the e3-square.

As variations (b) to (g) show, Black is also threatened with two other checkmates: 2.Nxa6 and 2.Rc6. There is no move to deter both threats except for fatal variation (a).

OPENINGS

Openings: Problem 1



Solution: 1.Nf3, 1.Nc3, 1.Bc4, 1.f4, 1.c3, 1.d4 (1.Nf3 is the most popular, and best, move in this position; the other moves are acceptable. Here, the choice of the move is influenced by a particular player's predilections.)

This position, after one move by each side, has been reached in countless games. By moving the e pawn two squares, each side has sent a pawn into the center, and opened lines for the Queen and Bishop.

What are the possibilities now?

Queen moves are premature:

1.Qe2 and 1.Qf3 bottle up the development of White's King-side; 1.Qg4 exposes the Queen to immediate attack and loss of time (tempo) by 1... Nf6. The Queen will have to move again, while Black has developed a piece.

1.Qh5 seems to make more sense, as it attacks the e5-pawn and the f7-pawn (which is a weak spot because it is protected only by the King). But, Black will reply 1... Nc6, and the White Queen is misplaced and subject to future attack.

In general, it is a mistake to develop the Queen before other pieces are out. As it is the strongest piece, it will have to scurry, and lose time, when attacked by any other enemy unit.

What about Bishop moves?

1.Be2 puts the Bishop at a very modest spot. White, having the initial move in the opening, should strive to gain the advantage.

1.Bd3 is a mistake, since it places that piece on a square where it blocks the d2-pawn. That pawn will have to be moved to participate in the struggle for the center, and to allow smooth development of White's Queen-side pieces.

1.Bb5 needlessly exposes the Bishop on a square where Black can kick it with 1...c6.

1.Bc4 is a respectable move, initiating the Bishop Opening. It strikes at the f7-pawn. However, the move is not fashionable, mainly because it violates the general principle of developing Knights before Bishops. The Bishop, the more far-ranging piece, has a greater choice of squares to which it can go. Why not wait for the contours of the position to become more sharply delineated before committing that piece?

Now, let us consider possible pawn moves.

Moves by the a, b, g, and h pawns do nothing to further White's piece development or strengthen White's grip on the center. Indeed, moves by these pawns can create weaknesses (squares which cannot be controlled by pawns) that will be a source of problems later in the game.

The move 1.c4 also creates such a weak square, at d4.

1.c3 has an idea behind it: to prepare the pawn push d4, and if Black plays e5xd4, White will be able to recapture with cxd4 and maintain a couple of strong central pawns. But 1.c3 is a ponderous move—it blocks the most natural developing square of the Knight at b1.

1.d3 is also uninspiring—it opens the diagonal for the Bishop at c1, but it shortens the range of White's other Bishop.

1.d4 is sometimes played, but it is premature. If play proceeds 1...e5xd4 2.Qxd4 Nc6, White will have to waste time removing the Queen from peril. 1.f3 is about as bad as a move can be: it weakens the King position by opening the e1-f2-g3-h4 diagonal to it, and it does nothing for White's development—in fact, it blocks the most natural square for developing the Knight on g1.

1.f4 aims to knock out Black's e5-pawn, even at the cost of a pawn. It introduces the King's Gambit, an opening not as popular now as in the storied Romantic Era of chess more than a century ago.

How about Knight moves?

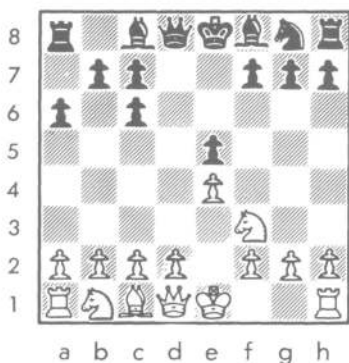
1.Ne2 does develop a piece, but not to an aggressive post. The move also temporarily hems in the Queen and the Bishop on f1.

1.Nh3 and 1.Na3 are also inferior, because on the side of the board, Knights have less range than on the more central squares.

1.Nc3 develops the Knight to a central square; it initiates a common opening—the Vienna Game.

Finally, 1.Nf3 is the best move in the position. It develops the Knight centrally, and grants White the initiative: Black will have to do something about his e5-pawn, which White has attacked.

Openings: Problem 2



Solution: 1.0-0

In this position, White has several other reasonable moves, but none are as good as 1.0-0.

The most obvious move is 1.Nxe5, taking the Black pawn which is undefended. However, the gain of a pawn is only apparent. Black has two replies which regain the pawn with a good position: (a) 1... Qd4 is a double attack on the undefended Knight and the e4-pawn; White has no move to save both. (b) 1... Qg5 attacks the Knight and the g2-pawn. Again, both cannot be defended simultaneously. On 2.Nf3 Qxg2, White will no longer be able to castle on the King-side.

1.Nc3 develops a piece and protects the e-pawn, but later in the game the Knight might be better developed to d2.

1.d3 and 1.Qe2 are passive moves, putting no pressure on Black.

1.d4 was, for many years, the standard move in this position. It opens lines for the Queen and the Bishop on c1. Also, it prepares to exchange the d-pawn for the e5-pawn, leading to a position in which White has a 4-3 pawn majority on the King-side (e to h pawns). Such a pawn set-up is White's main strategic idea in this opening variation.

However, 1.0-0 is the strongest move in the position. Castling is usually a good idea because it removes the King from the center, where it is in greater danger of being attacked, and it activates a Rook.

Also, in this position, 1.O-O makes the threat of the Knight capturing the e5-pawn real. In contrast to variations where that move is played before castling, the g2-pawn is now defended by the King. And, the e4-pawn, although not directly defended, would be unappetizing for Black to capture with the Queen, since the Rook is now able to move to e1, where it could generate threats to the King, based on the e-file now being open (since both e-pawns are missing).

Thus, castling retains the initiative for White, since now Black, on his next turn, has to cope in some fashion with the threat against the e-pawn.

Openings: Problem 3



Solution: 1 ... Bb6

Black's Bishop is attacked, and he has only two moves to save it from immediate capture.

The alternative to 1 ... Bb6, 1 ... exd4, is an error because White will recapture 2.cxd4. In the resulting position, White will have a great space advantage in the center. His e and d pawns occupy and control the four central squares. As Black has exchanged off his forward-most e5-pawn, the only counterweight to White's strong central phalanx would be the puny Black pawn at d6.

1 ... Bb6, on the other hand, maintains Black's central stronghold, and prevents Black from getting too cramped a position.

Openings: Problem 4



Solution: 1. b4 Qc6 (on any other move, the Queen is immediately captured)
2. Bb5 Qxb5 3. Nc7+ Kd8 4. Nxb5

An example of what might happen when the Queen starts wandering around too early in the opening. White forces the win of the Queen for a minor piece.

Openings: Problem 5



Solution: 1. Be3

The White Knight on d4 is attacked, and White must do something about it. 1. Be3 is best because another piece is developed, and the Knight remains on its strong central post.

Inferior are:

- (a) 1. Nxc6 bxc6, and White has fortified his central position because the pawn at c6 has more influence on it than when it was at b7.
- (b) 1. Nb3 puts the Knight at a less effective spot.
- (c) 1. Nf3 also decentralizes the Knight, and blocks the f-pawn which White often wants to advance when attacking in this opening.
- (d) 1. Nde2 is passive, as it blocks the King Bishop.
- (e) 1. Nb5 a6 2. Na3, and the Knight winds up terribly misplaced.

TACTICS

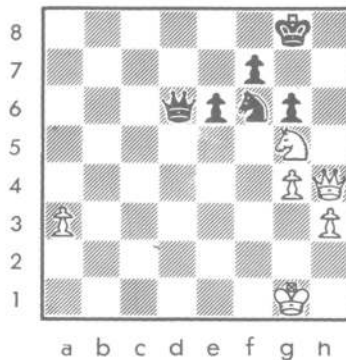
Tactics: Problem 1



Solution: 1.Qe5

An example of double attack. Both of Black's Rooks are attacked by the Queen, and there is no one move to save the two simultaneously.

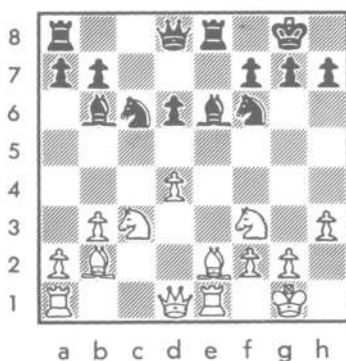
Tactics: Problem 2



Solution: 1.Qh8+ Kxh8 2.Nxf7+ Kg7 3.Nxd6

White's first move decoys the Black King to a square where the Black King and Queen are subject to a Knight fork. As a result of the combination, White wins a pawn and should win the ending. Also, with the Queens off the board, White will no longer have to worry about attacks vs. his exposed King.

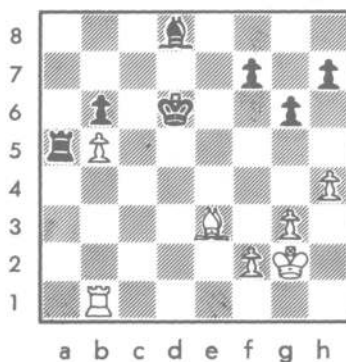
Tactics: Problem 3



Solution: 1.d5

This double attack is called a pawn fork. Black's Knight on c6 and Bishop on e6 are simultaneously attacked, and Black will have to give up a piece for a pawn.

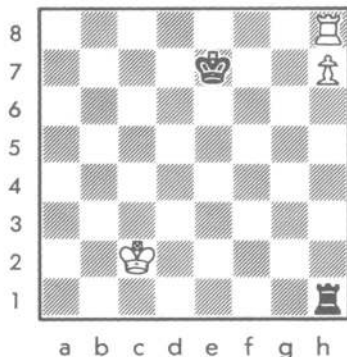
Tactics: Problem 4



Solution: 1.Rd1+ Ke7 (or Kc7) 2.Rxd8 Kxd8 3.Bxb6+ K (any) 4.Bxa5

A combination which garners White an overwhelming material advantage. Black could minimize his loss by varying with 2... Rxb5, but with only one pawn for the piece, he would have scant chance of saving the game.

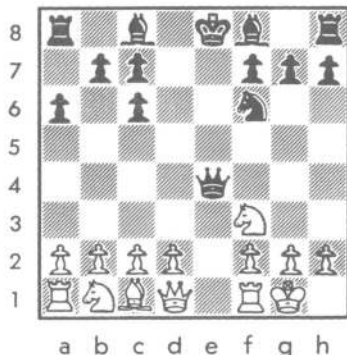
Tactics: Problem 5



Solution: 1.Ra8 Rxb7 2.Ra7+ K (any) 3.Rxb7 and White wins

The position is resolved by an x-ray attack through Black's King to win the Rook. Instead of 1 ... Rxb7, Black can start a series of checks with 1 ... Rh2+. However, this method will not change the result, since the White King will approach the h-file and the Rook will run out of safe checks. If Black does not capture the h7-pawn eventually, it will advance and Queen.

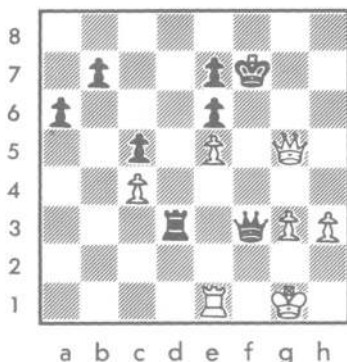
Tactics: Problem 6



Solution: 1.Re1

The Queen is pinned: it cannot move because the King would then be exposed to check. Black cannot avoid losing the Queen for the Rook—a devastating material handicap.

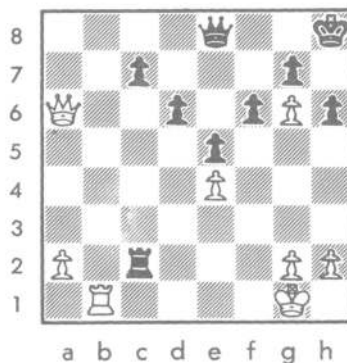
Tactics: Problem 7



Solution: 1. Rf1 Rd1 2. Qh5+ K (any) 3. Qxf3

A battle of pins. With his first move, White pins the Black Queen against the King. Black responds with a counter-pin, apparently saving the Queen. However, White has the final word on his second move, winning the immobilized Queen.

Tactics: Problem 8



Solution: 1. Qa4 (a) 1 ... Qxa4 2. Rb8+ Qe8 3. Rxe8 checkmate
 (b) 1 ... Qxg6 (or any other move which does not put Queen in take) 2. Qxc2
 (c) 1 ... Rc6 2. Qxc6 Qxc6 3. Rb8+ Qe8 4. Rxe8 checkmate

The Black Queen has to guard the weak back rank. White's first move attacks both the Queen and the unprotected Rook on c2.

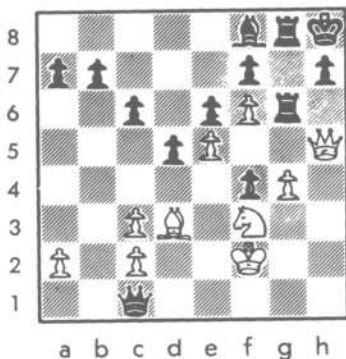
Tactics: Problem 9



- Solution:** 1.Ne5 (a) 1 ... Bxa4 2.Bxf7 checkmate
 (b) 1 ... e6 2.Nxc6
 (c) 1 ... Qd6 2.Nxc6 Nxc6 (if 2 ... Qxc6,
 3.Bb5 wins Black's Queen because it
 is pinned to the King)

White's Queen is attacked. But, instead of moving it, he makes a *zwischenzug* (an intermediate move), which has an even more compelling threat—checkmate. Black can save his King, but only at the expense of a piece.

Tactics: Problem 10

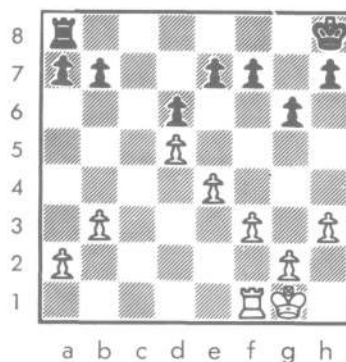


Solution: 1.Qxh7+ Kxh7 2.Ng5+ Kh6 3.Nxf7+ Kh7 4.Ng5+ Kh8
5.Nf7+ with a draw by perpetual check

In the initial position, White has a huge material deficit and is face-to-face with defeat. The prosaic 1.Bxg6 would scarcely improve the situation, since White would still be more than a Rook behind. 1.Ng5 allows a devastating Black attack, starting with 1... Bc5+ (not 1... Rxg5 2.Qh7 checkmate). White's salvation is a Queen sacrifice, deflecting the Black King to a square from which he will be subjected to unescapable pursuit by the two remaining White pieces. The game ends as a draw because of the three-fold repetition of position rule.

STRATEGY

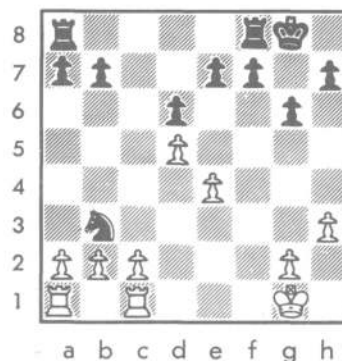
Strategy: Problem 1



Solution: 1.Rc1

Rooks belong on open files. Usually, they are strongest on the seventh rank. Here 1.Rc1 seizes the open file. No matter how Black replies, White will be able to play 2.Rc7, winning a pawn in every variation.

Strategy: Problem 2



Solution: 1.axb3

White's decision is whether to recapture the Knight with the a-pawn or the c-pawn. 1.cxb3 opens the c-file for the Rook, but Black can hold his own here with 1... R(f)c8. 1.axb3 is preferable because it is usually better to capture toward the center (that being the most important part of the board), and because after 1.axb3 the White pawns are more united than after the other capture (i.e., there is only the gap on the f-file between them, instead of an additional gap on the c-file).

Strategy: Problem 6



Solution: 1.Rc1 with threat of 2.Bxb6 and 2.d6, in both cases winning a pawn. Black has no reply which could preserve the pawn.

Black's c7-pawn is backward (i.e., it is on the half-open c-file, it is behind its neighboring friendly pawns, and it is restrained from advancing by White's b5 and d5 pawns). A backward pawn is usually a good target for the opposing pieces.

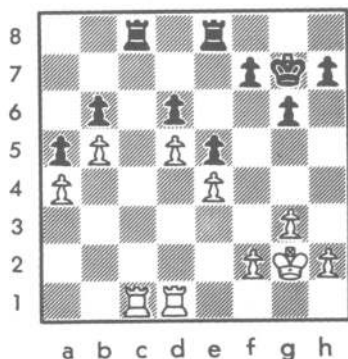
Strategy: Problem 7



Solution: 1.Qd5 Qe8 2.a5 h6 3.Qxf7+ Qxf7 4.Bxf7+ Kxf7 5.a6 d5 6.a7 any 7.a8(Q) With the material advantage of Queen vs. Bishop, White will win easily.

This position demonstrates the importance of mobility of the pieces in evaluating a position. White's Bishop and Queen control more squares than their sorry Black counterparts. In addition, White has a strong passed pawn on the a-file. With his first move, White ties Black's Queen down to the defense of the vulnerable f7 pawn. Then he advances on the other flank with his free a-pawn. This alteration of threats is a frequent method of cashing in a mobility preponderance. Black can play differently from the variation cited in the solution—then he will lose differently. Note that Black's extra pawn plays no role here.

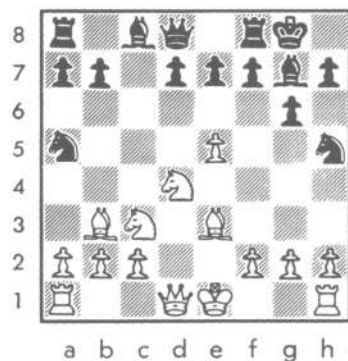
Strategy: Problem 8



Solution: 1.Rc6 Rxc6 (otherwise White wins either the b or d-pawn, with a winning endgame)
 2.dxc6 Rd8 3.Rxd6 Rxd6 4.c7 and the pawn will Queen next move

Although at first sight the position seems nearly symmetrical, White has two points in his favor: (a) he controls more space; and (b) it is his move. With his first move, White occupies a strong outpost square on the open file. No matter how Black responds, he is saddled with a losing endgame.

Strategy: Problem 9

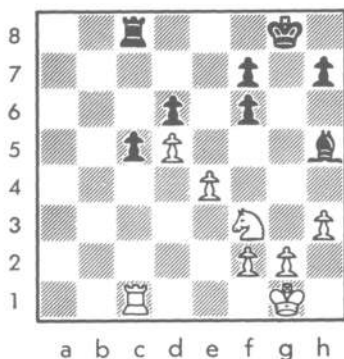


Solution: 1.g4

(a) 1 ... Bxe5	2.gxh5
(b) 1 ... Nf4	2.Bxf4
(c) 1 ... Nf6	2.exf6
(d) 1 ... Ng3	2.hxg3

Knights are least effective on the board's edge, because they control the fewest squares from there. The first move here traps the Knight—it has no safe square to head for.

Strategy: Problem 10



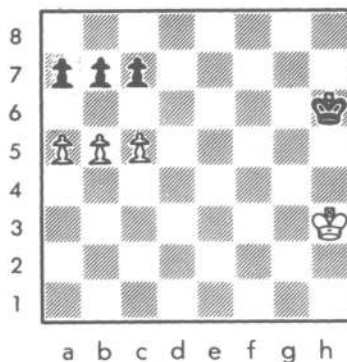
Solution: 1.g4 Bg6 2.Nd2

White locks the Black Bishop out of play. At the first opportunity, White will continue with f3, and there will be no way for the Black Bishop to break out of its dungeon. In effect, White will be a piece up. He can utilize this edge on the other side of the board, laying siege to Black's main weakness—the d6-pawn—with his Rook, Knight, and, if necessary, his King. Eventually, that pawn will fall to White's superior force. With his d5-pawn becoming passed, White should have an easy time of it. During the whole procedure, Black's Bishop will be a helpless bystander at g6.

The solution to this problem, and the correct subsequent procedure, is an illustration of a plan—the framework of strategic thinking about chess. The outlined procedure might take many moves to execute; but conceptually, it is quite simple.

ENDGAMES

Endgames: Problem 1



Solution: 1.b6 (a) 1 ... axb6 2.c6

(a1) 2 ... bxa5 3.cxb7 and
the b-pawn will Queen

(a2) 2 ... bxc6 3.a6 and
the a-pawn will Queen

(b) 1 ... cxb6 2.a6

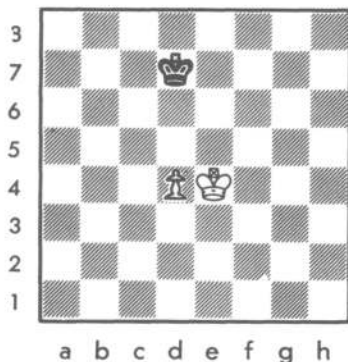
(b1) 2 ... bxc5 3.axb7 and
the b-pawn will Queen

(b2) 2 ... bxa6 3.c6 and
the c-pawn will Queen

(c) 1 ... any other move 2.bxc7 or 2.bxa7,
depending on circumstances, will yield an
unstoppable passed pawn.

This example illustrates a pawn breakthrough leading, in all variations, to a passed pawn, with which Black cannot cope.

Endgames: Problem 2



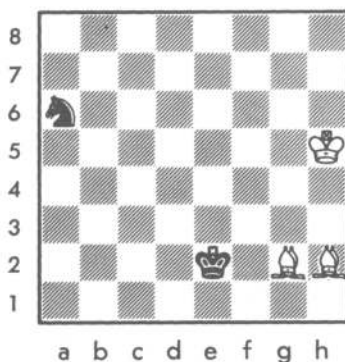
Solution: 1.Kd5 Ke7 2.Kc6 Kd8 3.Kd6 Kc8 4.Ke7 Kc7
5.d5 Kc8 6.d6 K (any) 7.d7 K (any) 8.d8 (Q)
and White wins

A crucial position in the King plus pawn vs. King ending. If White plays any other first move, the position will be drawn. For example:

- (a) 1.d5 Kd6 2.Kd4 Kd7 3.Kc5 Kc7 4.d6+ Kd7 5.Kd5 Kd8
6.Ke6 Ke8 7.d7+ Kd8 8.Kd6 and draw by stalemate
- (b) 1.Ke5 Ke7 2.Kd5 Kd7 3.Kc5 Kc7 4.d5 Kd7 5.d6 Kd8
6.Kc6 Kc8 7.d7+ Kd8 8.Kd6 and draw by stalemate

The key idea in winning the ending is for White to seize the opposition with his King in front of the passed pawn. Opposition is defined as the separation of Kings on the same line or diagonal by an odd number of squares. In the solution, White gains the opposition with his first move.

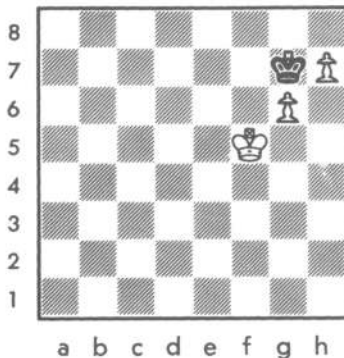
Endgames: Problem 3



Solution: 1. Bd6 K (any) 2. Bb7 winning the Knight and the game

With his first move, White controls all the squares that the Knight can escape to, while the second move prepares to capture it.

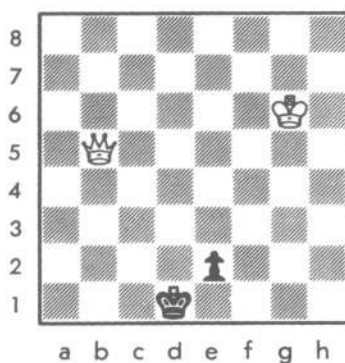
Endgames: Problem 4



Solution: 1. h8 (Q)+ Kxh8 2. Kf6 Kg8 3. g7 Kh7 4. Kf7 K
5. g8 (Q) and White wins

To win this endgame, White has to sacrifice his h pawn. A try is 1. Kg5 Kh8 2. Kf6, and the game is a draw because of stalemate.

Endgames: Problem 5



Solution: 1.Qd3+ Ke1 2.Kf5 Kf2 3.Qd4+ Kf1 4.Qf4+ Kg2
5.Qe3 Kf1 6.Qf3+ Ke1 7.Ke4 Kd2 8.Qd3+ Ke1
9.Kf3 Kf1 10.Qxe2+ Kg1 11.Qg2 checkmate

Both sides can vary their moves. It is the method that is important. Given a free move, Black will draw the game by Queening. So, White must keep driving Black's King in front of the pawn to buy time so that he can approach the pawn with his own King. Once the King is near the enemy pawn, the rest is easy.

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Most of these books are available, at special membership prices, from the United States Chess Federation.



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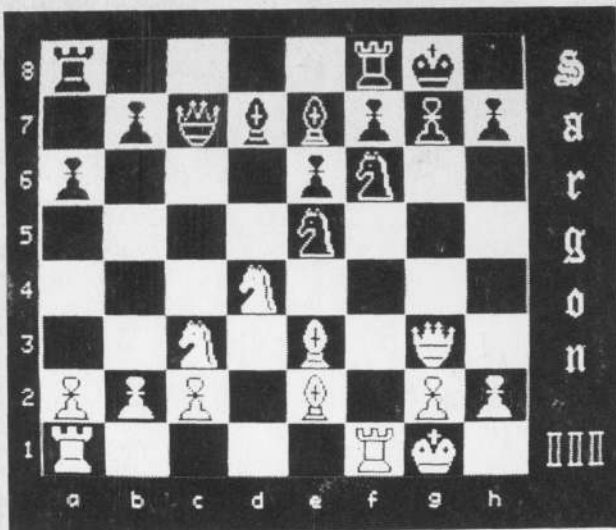
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