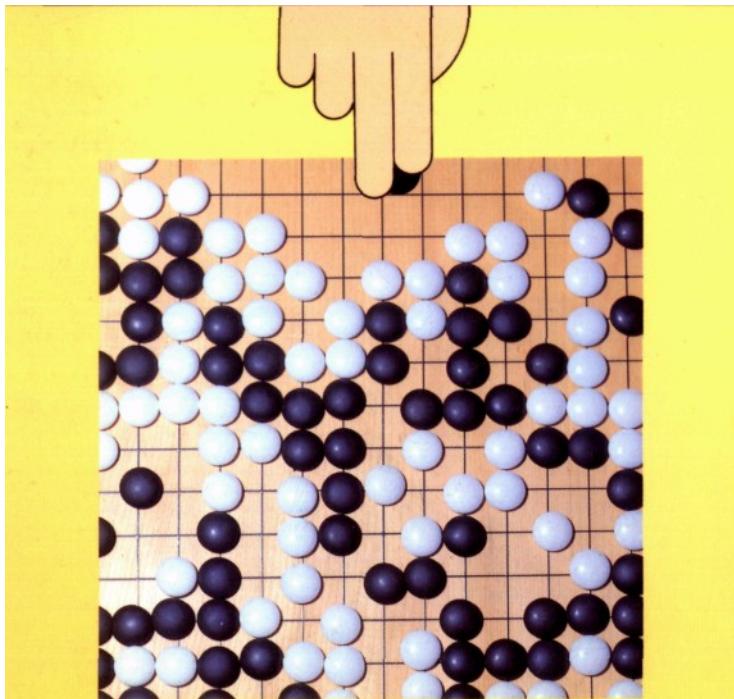


# Elementary Go Series, Volume 3

## TESUJI

by James Davies



Kiseido Publishing Company

Elementary Go Series, Vol. 3

## **TESUJI**

by  
James Davies

**Kiseido Publishing Company  
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## PREFACE

This book covers the elementary tactics of the game of go, apart from those of life and death and of the endgame which have been saved for other volumes. Problems, which the reader should try to solve as he reads along, fill about half the pages. Most of them will yield to a direct application of the ideas in the text, although in some of the problems at the ends of the chapters the reader will be on his own.

I am indebted to Richard Bozulich and James Kerwin for contributing problems and examples and for proofreading, and in particular to James Kerwin for making suggestions that led to the writing of chapter one and the organization of the book in its present form.

Tokyo, January, 1975

James Davies

## FOOTNOTE

It does not amount to a new edition, but in the first reprinting of this book several proofreading slips, and two more subtle errors in the problems (pages 58 and 61) have been corrected. My thanks go to Mr. Reinhard Walther for bringing the latter to my attention.

August 1977

J. D.

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## **1. READING**

The problems in this book are almost all reading problems. They are not going to tax your judgement by asking you to find the largest point on the board, choose the direction of play, or ponder the relative merits of profit and outer strength. Instead, they are going to ask you to work out sequences of moves that capture, cut, link up, make good shape, or accomplish some other clear tactical objective.

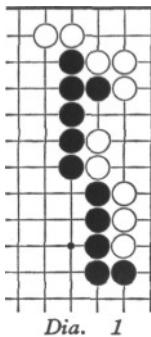
A good player tries to read out such tactical problems in his head before he puts the stones on the board. He looks before he leaps. Frequently he does not leap at all; many of the sequences his reading uncovers are stored away for future reference, and in the end never carried out. This is especially true in a professional game, where the two hundred or so moves played are only the visible part of an iceberg of implied threats and possibilities, most of which stays submerged. You may try to approach the game at that level, or you may, like most of us, think your way from one move to the next as you play along, but in either case it is your reading ability more than anything else that determines your rank.

There is an element of natural talent involved, but for the most part reading ability is developed through study and experience. As you become familiar with various positions and shapes you will find certain moves, called tesuji, that come up again and again, and once you learn them your reading will become much faster and more accurate. There are also certain habits of thinking to be acquired, which this chapter will try to illustrate.

The first principle in reading is to start with a definite purpose. There is no better way to waste time than to say to yourself, 'I wonder what happens if I play here, and start tracing out sequences aimlessly. Tactics musts serve strategy. Start by asking yourself what you would like to accomplish in the position in question, then start hunting for the sequence that accomplishes it. Once you have your goal clearly in mind the right move, if it exists, will be much easier to find.

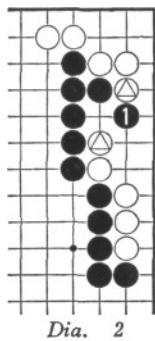
With the goal set, reading is a matter of working your way through a mental tree diagram of possible moves. You should be systematic and thorough. Start with the obvious move, followed by the obvious counter-move, the obvious counter-move to that, and so on until you have a sequence that ends in success for one side and failure for the other. Then take the last move made by the side that failed and try other possibilities. If they all fail too, go back to the same side's move before that and do the same thing again. It is important to work from the back toward the front of the sequence, to avoid leaving things out. Eventually you will arrive at a conclusion, and hopefully it will be correct.

As an example, let us take the question of whether Black can cut off the five white stones in the lower portion of Dia. 1. Both players want to know the answer to this question, but let us imagine ourselves as Black and follow his thought processes as he reads the problem out.

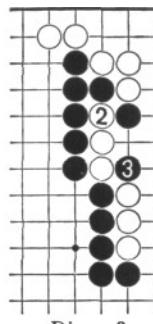


Dia. 1

Since he is trying to separate the two stones marked  $\Downarrow$ , the obvious move to start with is 1 in Dia. 2. The obvious counter-move, White 2 in Dia. 3, fails because of Black 3. Black 1 looks promising, but we must consider other possible counter-moves by White.



Dia. 2

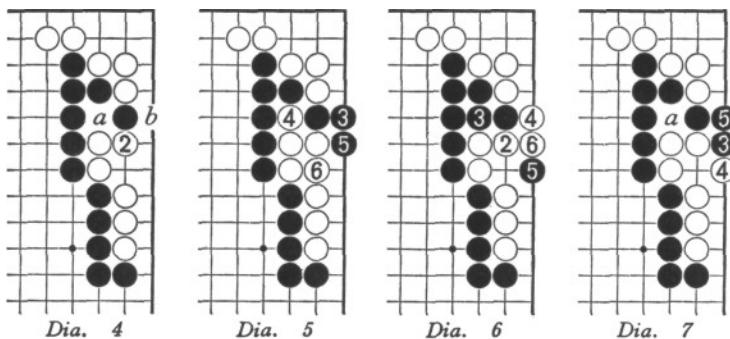


Dia. 3

The next most obvious counter-move is White 2 in Dia. 4, which aims at going over the black stone at *a* or under it at *b*. For Black 3 we start by blocking White's path as in Dia. 5 and letting him cut. Black gives atari at 5, White connects at 6, and Black is dead. Are there any better possibilities for Black 5? No, so this Black 3 fails.

Next comes Black 3 in Dia. 6. After White links underneath Black has what looks like a tesuji at 5, but it comes to nothing. This Black 3 fails too.

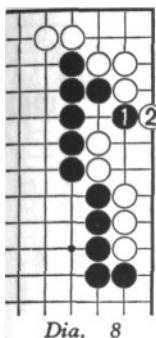
By now Black may be ready to conclude that White 2 works, but he still has other Black 3's to try. Sooner or later the hane at 3 in Dia. 7 is going to come to light. This is a real tesuji, the eye-stealing tesuji, and if you know it you probably spotted it immediately. It stops White from linking up, and White cannot cut at *a* because of shortage of liberties, (that is, he would be putting himself into atari). This is still true after White 4 and Black 5; the white stones are cut off and dead.



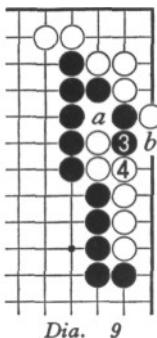
So the White 2 we have been investigating in Dias. 4 to 7 turns out to be a failure; that only means that other, less obvious White 2's have to be tested. The next candidate might be the hane shown in

### Dia. 8.

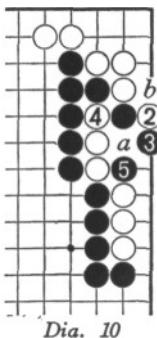
If Black plays 3 in Dia. 9, White will connect at 4 and be threatening to link up with either *a* or *b*. Black cannot defend against both of these threats, so he has failed. In this kind of situation *a* and *b* are called miai; if one player takes one of them, the other player can take the other.



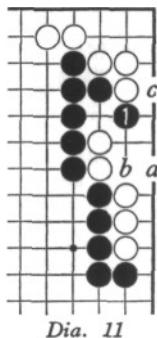
Dia. 8



Dia. 9



Dia. 10



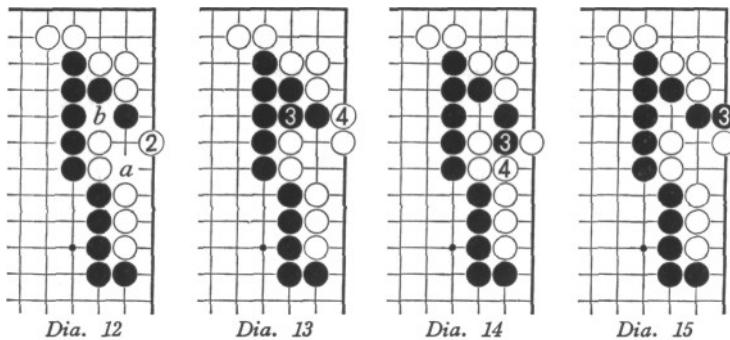
Dia. 11

Black 3 in Dia. 9 failed, but Black 3 in Dia. 10 succeeds. If White cuts at 4, Black has a snap-back at 5; if White plays 4 at *a*, Black captures at *b*; and if White connects at *b*, Black can play 4, 5, or *a*. This eliminates the hane for White 2.

White's resources are fast disappearing, and we must now turn to rather unlikely-looking choices, such as *a*, *b*, and even *c* in Dia. 11, for White 2. Each of these, however, can quickly be eliminated. See if you can find answers to them for yourself; only White *a* is at all tricky, (it invites a mistake in which Black captures two of the white stones but misses the rest).

If you have dealt with the moves in Dia. 11, then a total of six White 2's have been shown to fail. Does that mean that Black 1 is established? Not yet, for there is one White 2 left, the least obvious and strongest move of all.

The last arrow in White's quiver is the one-point jump to the edge in Dia. 12. It guards the cutting point at *a* and hence threatens to cut at *b*. If White connects at 3 in Dia. 13, White can link up with 4, and Black 3 in Dia. 14 runs into a move that we have seen before. These two Black 3's are failures.



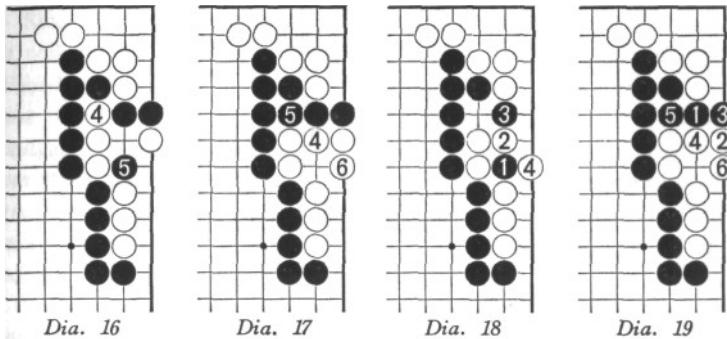
Boldness may succeed where caution fails, so next Black tries blocking White's way directly with 3 in Dia. 15. At first, this seems to work. White cannot cut at 4 in Dia. 16 because Black will cut him right back with 5. Since 4 fails, there is no way White can get through to the corner; he has put up a good fight, but it looks as if he has lost in the end. Just to be on the safe side, however, Black had better doublecheck for an alternative to White 4 in Dia. 16.

And sure enough, there is White 4 in Dia. 17. Black connects at 5 and although White is cut off, he can live by playing 6.

There is something maddening to Black about reading to this point, proving that no matter how White answers Black 1 he can be cut off, only to discover that the cut-off group can live. Patiently Black goes on and tests other Black 1's, like the one in Dia. 18, but they

all fail. The conclusion he comes to is that Dia. 19 is the best sequence for both sides.

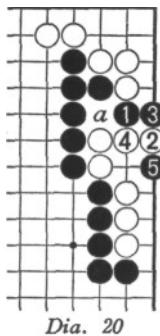
Since he has put so much thought into it, Black may be tempted to play out Dia. 19 even though it is not a real success; at least it gives him some profit in sente, and maybe White will miss the tesuji at 2.



There are two reasons, however, why Black should restrain himself. The first is that moves like these should be saved for use as ko threats. Most games involve at least one ko fight, and the player who squanders his threats before the ko is going to be sorry. If Black leaves the position alone White is not likely to bother making a defensive move, so the opportunity to play 1 will still be there later on.

The second reason is that there is always the chance of having made a reading mistake. Especially in a non-urgent position like this, you can afford to turn your attention elsewhere, then come back later for a second look. Re-examining positions that you have already read out is a good way to spend the time waiting for your opponent to play; it often turns up moves that were missed before.

In the position we are considering, for example, if Black looks again he may finally see 5 in Dia. 20, which destroys White's eye shape while inflicting shortage of liberties on him to keep him from cutting at *a*. Now he has the truth. He does not have to play 1 at once, but he knows that when the time comes, the white stones are there for the taking.



When you have a sequence that almost works, like the one in Dia. 19, it is a good idea not to give up on it. Often changing just one move, or changing the order of moves, or reading just one move further is all that is needed.

What about the positions that are simply too hard to read out? As far as possible, they should be left alone. Future developments may alter them, and the unreadable may become readable, and anyway you lose much more by having a lot of stones captured in a sequence that fails than by letting your opponent defend where you could have destroyed him. In the latter case, while your opponent is defending you get two moves in a row elsewhere on the board. In the former case there is no compensation. Sometimes, of course, you have to push ahead blindly, but remember that it is weak players who are always playing in situations they cannot read out, and strong players who refrain from playing even when they have the situation completely read out.

Most of the rest of this book consists of examples of tesuji and problems on which you can practice your reading. One word of warning about the answers to the problems is necessary. In general there will be only one or two answer diagrams, showing how the correct answer succeeds against the opponent's strongest resistance. For the problem read out in this chapter, only the variations of diagrams 7, 20, and perhaps 10 would appear in the answer diagrams. The rest of the reading would be left up to you. Occasionally a wrong answer is shown as a pitfall, and marked 'failure'.

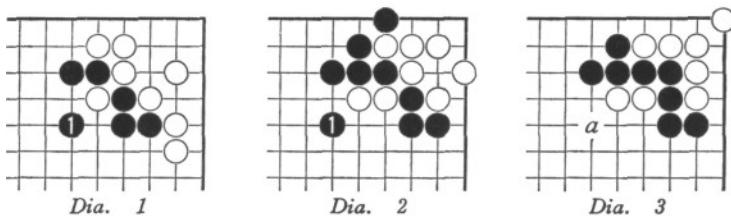
Since the opponent's strongest resistance to the correct answer fails, it will not usually be the best move for him to make in actual play. Faced with Black 1 in Dia. 20, for instance, White's best response is not the 'strongest' move at 2, but rather no move at all. In the endgame White should play the hane, (2 at 3), and connect, a variation that would not appear among the answer diagrams. If you respect your opponent's reading ability you will want to avoid many of the even-numbered moves in the answer diagrams of this book.

It took us twenty diagrams to get through one problem in this chapter, but most of the problems coming up will not turn out to be so complicated, and even the hard ones should not take so long once you have gotten a grasp of tesuji. The importance of learning tesuji is that you learn where to look for the answer, and can go straight to the move that works without having to waste time thinking about moves that fail.

## **2. CAPTURE THE CUTTING STONES**

Diagram 1 shows the kind of move that this chapter is about. White has one stone on the outside, partly surrounded by black stones but ready to make a dash for the open. Black 1 traps it, blocking its escape and capturing it.

Diagram 2 shows the same type of operation, except that now Black 1 captures two white stones. Try as they may, they cannot escape. In the next few pages you will meet more advanced tesuji for trapping enemy stones out in the open or for running them to earth at the edge of the board.

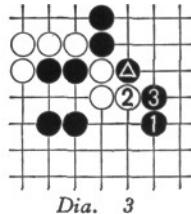
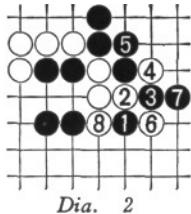
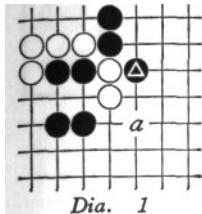


What makes moves like this worth playing is not so much the size of the capture—Black is getting only two points in Dia. 1 and four points in Dia. 2—but the fact that the captured stones were cutting stones. If White, instead of Black, played 1 in Dia. 1 for example, the black stones would be split into two very weak groups, one or the other of which would almost surely die.

Contrast this with Dia. 3, where the two white stones are not cutting stones. Black could capture them with *a*, but that would be only a four-point move of little significance. Black should ignore the enemy

stones, extend farther from his position, and try to surround a much larger area.

## The Knight's-Move Tesuji.



*Dia. 1.* Black wants to capture the two white stones in the center. Black *a*, the obvious move, does not work because White can push out between *a* and  $\Rightarrow$  and escape with a series of ataris, as shown next.

*Dia. 2.* Ataris at 4 and 6 spring White free. Fortunately there is a play that succeeds where Black 1 fails.

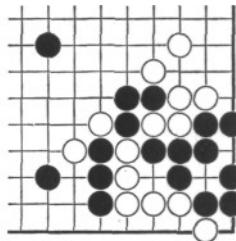
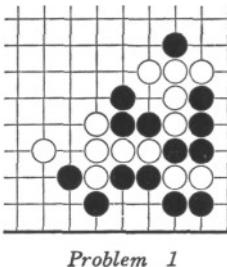
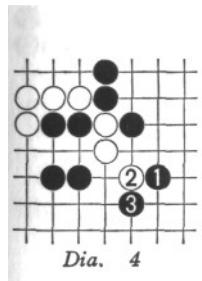
*Dia. 3.* This Black 1 is the tesuji; observe its knight's-move relation to Black  $\Rightarrow$ , the weak stone that caused the trouble in the previous diagram. After 2 and 3 an atari against Black  $\Rightarrow$  would accomplish nothing, and White is trapped much as in Dia. 2 on the previous page.

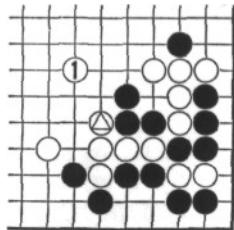
*Dia. 4.* Nor can White escape this way. Black 3 stops him.

The answers to the following two problems are on the next page.

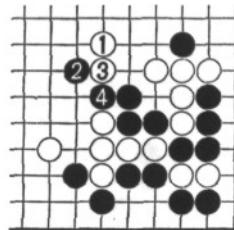
*Problem 1.* White to play and capture the cutting stones.

*Problem 2.* White to play and capture the cutting stones.





*Ans. to Prob. 1*



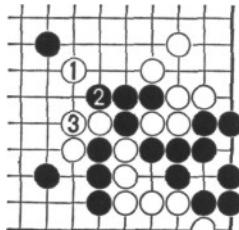
*Dia. 1a*

*Answer to problem 1.* White 1, a knight's move away from the weak stone @, does the job.

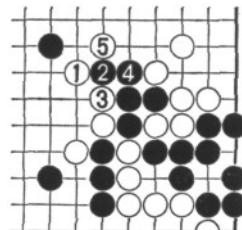
*Dia. 1a.* This is the wrong knight's move. Black 2 makes a neat escape.

*Answer to problem 2.* White 1 traps the black stones.

*Dia. 2a.* If Black plays 2, White has a short ladder.



*Ans. to Prob. 2*

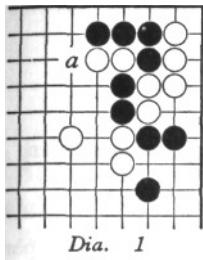


*Dia.* 2a

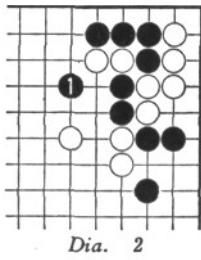
## The Loose Ladder Tesuji.

*Dia. 1.* If Black is going to get any kind of result out of this position he has to capture the pair of white stones to the right of *a*, but how? An atari at *a* would not work.

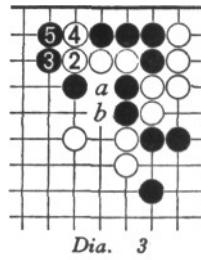
*Dia. 2.* Black 1 is the tesuji; it sets up a loose ladder.



*Dia. 1*



*Dia. 2*

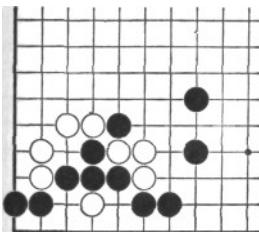


*Dia. 3*

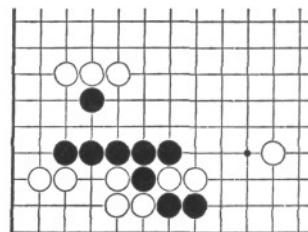
*Dia. 3.* Black guides White firmly to the edge of the board with 3 and 5, not only trapping the fleeing stones but capturing the whole corner. If at any point White plays *a*, Black *b* puts him in atari and hastens his end.

*Problem 1.* White to play and capture the cutting stone. It is not enough to find the first move; read out the whole sequence accurately.

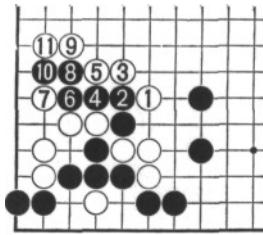
*Problem 2.* Black to play and capture White's cutting stones. If you can't head them off in one direction, try the other direction.



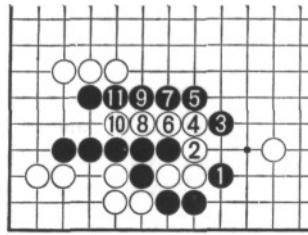
*Problem 1*



*Problem 2*



*Ans. to Prob. 1*



*Ans. to Prob. 2*

*Answer to problem 1.* White 1 and 7 are the key plays.

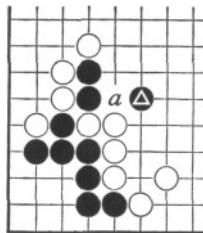
*Answer to problem 2.* This time the sequence starts with an atari.

## The Slapping Tesuji.

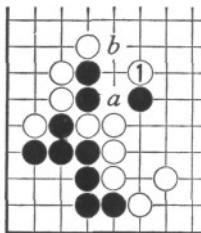
*Dia. J.* Black is trying to bring his two stones out into the open with  $\Rightarrow$ , (although he is doing it wrong, as will quickly become clear). Can White stop him? The series of ataris, i.e. the ladder, that starts with White *a* is broken by Black  $\Rightarrow$ , so White must look for something else.

*Dia. 2.* In this shape White 1 is the tesuji. It makes White *a* a real threat, so if Black is going to resist he must either connect at *a* himself or try to slip out with *b*.

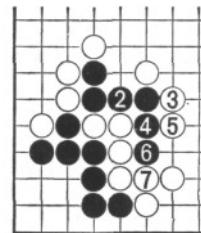
*Dia. 3.* But if Black connects at 2, White has him in a loose ladder with 3 and the rest.



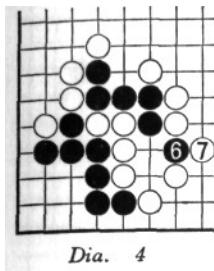
*Dia. 1*



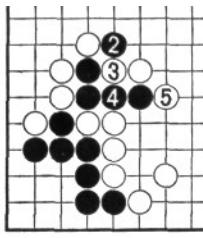
*Dia. 2*



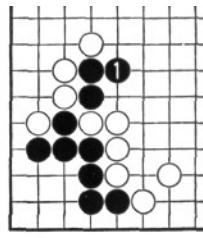
*Dia. 3*



Dia. 4



Dia. 5



Dia. 6

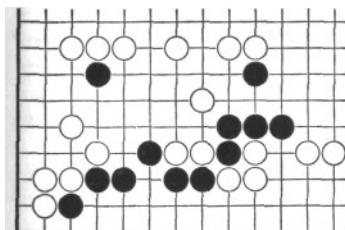
*Dia. 4.* Black 6 here, an attempt to set up a snap-back, bows before White 7.

*Dia. 5.* What about the other possible Black 2? White 3 gives atari, and from there on the moves are the same as before, except that the loose ladder becomes an ordinary ladder.

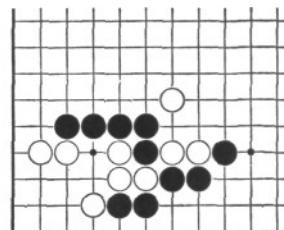
*Dia. 6.* To return to Black's original move, if he wants to escape he has to make an empty triangle with 1. Empty triangles are bad shape, but at least he has a chance to split White up and attack.

*Problem 1.* Black to play and capture the cutting stones.

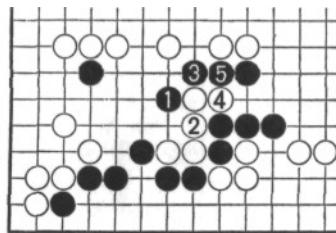
*Problem 2.* Black to play and capture the cutting stones. Be sure you have read out the whole sequence correctly.



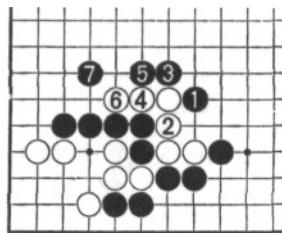
Problem 1



Problem 2



*Ans. to Prob. 1*



*Ans. to Prob. 2*

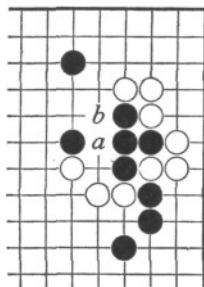
*Answer to problem 1.* Black 1 is the tesuji, rnd the rest is simple.

*Answer to problem 2.* Here the important point, aside from the tesuji at 1, is seeing when to jump ahead. Any move other than 7 would fail.

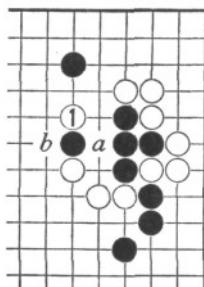
## The Clamping Tesuji.

*Dia. 1.* There may seem to be no way for White to capture anything in this position. If he cuts at *a*, for example, Black can get away with *b*.

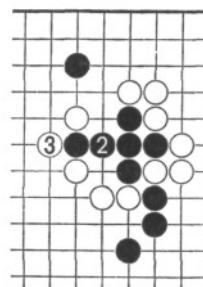
*Dia. 2.* There is a tesuji, however: the clamping move at 1. Its effect is to make miai of *a* and *b*.



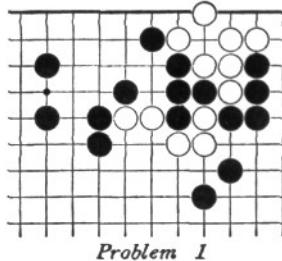
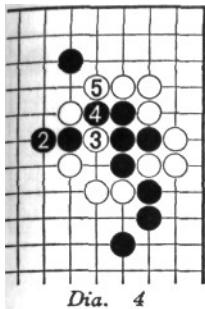
*Dia. 1*



*Dia. 2*



*Dia. 3*



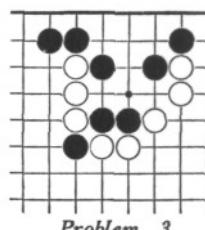
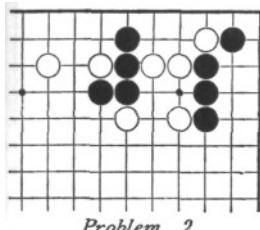
*Dia.* 3. For Black to connect at 2 is pointless. White 3 leaves him with no room to wriggle.

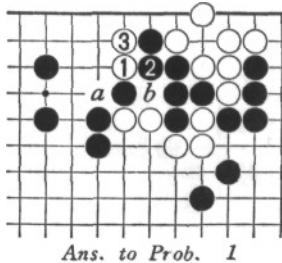
*Dia.* 4. But if he extends out with 2, White 3 severs him. Black's 4 does not work because White 5 captures his stones in a snap-back. Similarly, if Black played 2 at 4, White would answer at 5, leaving 2 and 3 as miai. Clamping tesuji do not always involve snap-back, but they are sometimes hard to see, so we have given you three problems this time.

*Problem 1.* White to play and capture the cutting stones.

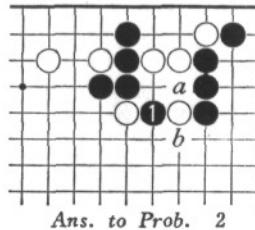
*Problem 2.* Black to play and halt White's escape. Don't be confused by extraneous stones.

*Problem 3.* White to play and capture the cutting stones.





*Ans. to Prob. 1*



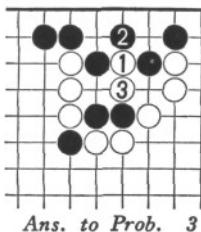
*Ans. to Prob. 2*

*Answer to problem 1.* White 1 is the clamping tesuji; it makes *a* and *b* miai. If Black plays 2, White plays 3, and vice versa.

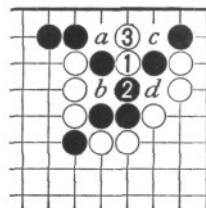
*Answer to problem 2.* This time Black has to make his clamping move right in between two white stones, but it still works. Again *a* and *b* are miai, and the three white stones above *a* are cut off and done for.

*Answer to problem 3.* White 1 is a surprising tesuji. Black's best response is 2, but White 3 gives atari and if Black connects he will still be in atari.

*Dia. 3a.* Black's play in this diagram only magnifies his loss. After White 3, *a* and *b* are miai on one side and *c* and *d* are miai on the other, and the three stones including Black 2 are captured.

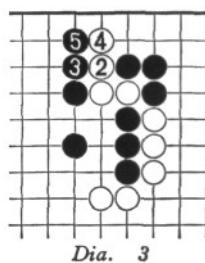
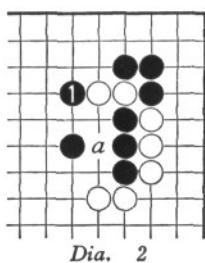
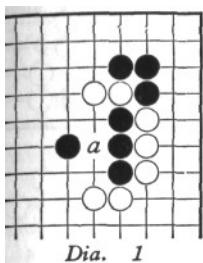


*Ans. to Prob. 3*



*Dia. 3a*

## The Nose Tesnji.



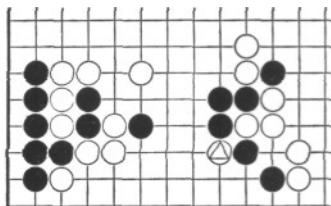
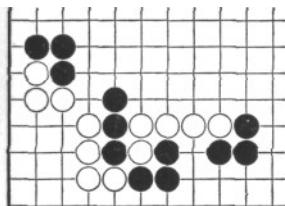
*Dia. 1.* Black is in a position to capture the upper pair of white stones, but he must be careful because the danger of White *a* is staring him in the face. A non-contact play would be too slow.

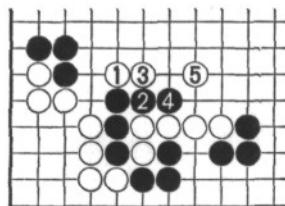
*Dia. 2.* Black 1 hits White squarely on the nose, so to speak. More to the point, it defends against *a* and catches the white stones in a loose ladder.

*Dia. 3.* Black 3 and 5 drive White to the edge of the board and allow him no escape.

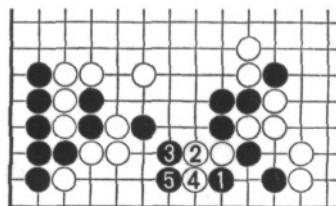
*Problem 1.* White to play and capture the cutting stones. As usual, be sure to read out the whole sequence.

*Problem 2.* Black to play and capture the stone marked  $\Downarrow$ . The nose tesuji is not the first move, but comes later.





*Ans. to Prob. 1*



*Ans. to Prob. 2*

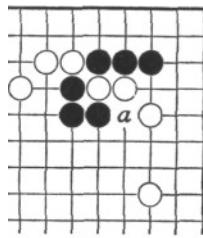
*Answer to problem 1.* White 1 is the nose tesuji, and 3 and 5 finish the job. *Answer to problem 2.* This time the nose tesuji comes at Black 3.

### The Gross-Girt Tesuji.

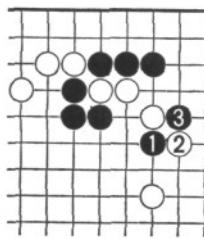
*Dia. 1.* Black seems to be separated into two groups, a corner one and an outside one, but there is a way for him to link them up and capture the two white stones that stand in between.

It would be a fatal mistake for Black to start by giving atari at *a*. Common sense might tell you that; Black can give atari either at *a* or from the other side, so he should hold both ataris in reserve and wait until one of them becomes effective.

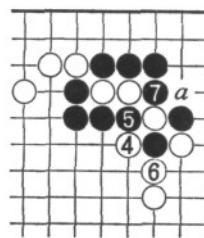
*Dia. 2.* The tesuji is the contact play at 1. White's best response is 2, and Black cross-cuts with 3.



*Dia. 1*

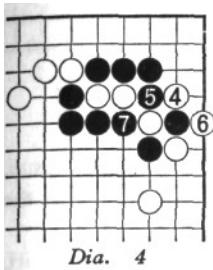


*Dia. 2*

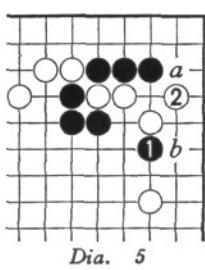


*Dia. 3*

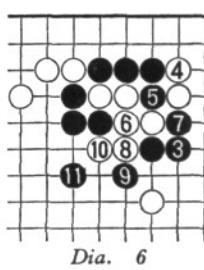
*Dia.* 3. If White gives atari at 4, Black gives a counter-atari at 5 and White cannot connect at 7 because of shortage of liberties. All he can do is to capture at 6, letting Black have two stones with 7 or *a*.



*Dia.* 4



*Dia.* 5



*Dia.* 6

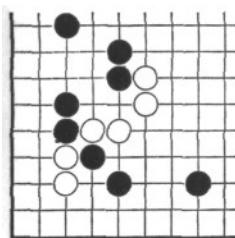
*Dia.* 4. If White gives atari from the other direction with 4, Black alters 5 accordingly.

*Dia.* 5. There is one move to watch out for in this shape. Occasionally when Black plays 1 White can resist with 2, threatening *a* and *b*.

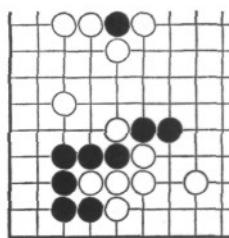
*Dia.* 6. But in the present position Black can foil White and make a big capture with 3 etc.

*Problem 1.* White to play and capture the cutting stone.

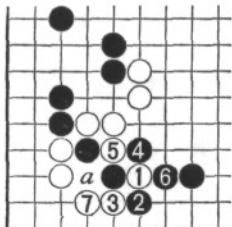
*Problem 2.* Black to play and capture the cutting stone.



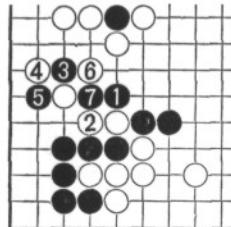
*Problem* 1



*Problem* 2



*Ans. to Prob. 1*



*Ans. to Prob. 2*

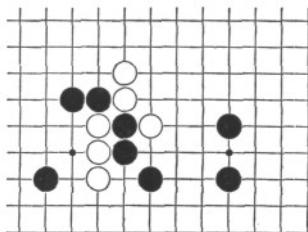
*Answer to problem 1.* White 1 and 3 are the cross-cut tesuji. After Black 4 to 6, White may prefer to play 7 instead of *a* for the sake of eye shape in the corner.

*Answer to problem 2.* Black 1 puts the cutting stone in atari, and if White draws out at 2, Black 3 and 5 are the cross-cut tesuji.

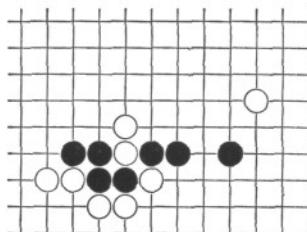
## More Problems.

The following eleven problems range from the very easy, such as numbers 3 and 4, to the moderately difficult, such as number 11. In each of them the idea is to capture the cutting stones. In one of the problems, (number 1), Black can save his cutting stones if he plays a certain way, but White can get a good result anyhow.

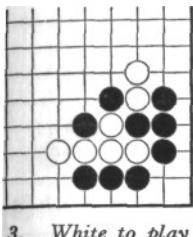
The answers appear briefly on the following two pages. As usual, the answer diagrams show moves that the player who loses the sequence should leave unplayed.



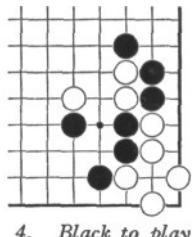
*1. White to play*



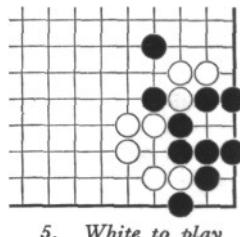
*2. Black to play*



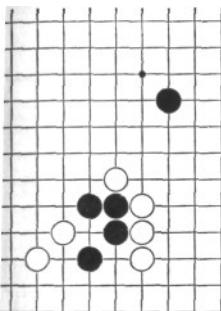
3. White to play



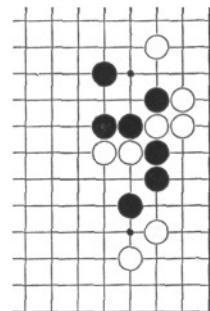
4. Black to play



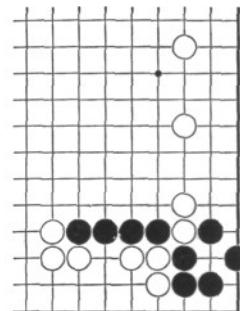
5. White to play



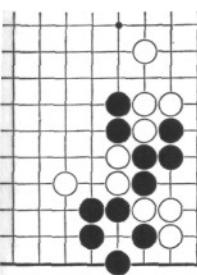
6. White to play



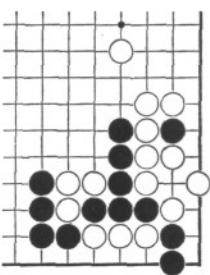
7. Black to play



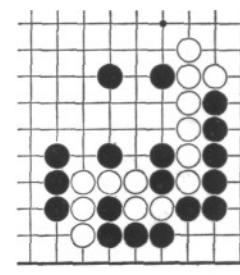
8. Black to play



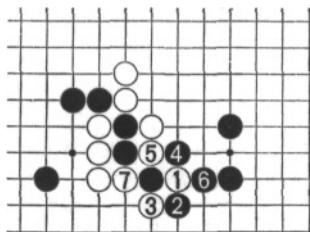
9. Black to play



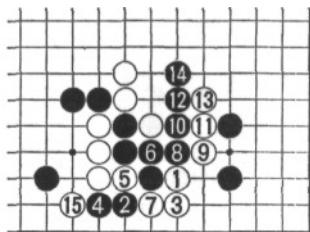
10. White to play



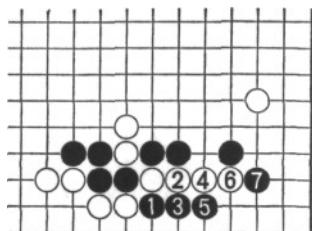
11. White to play



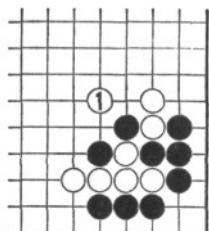
*Ans. to Prob. 1*



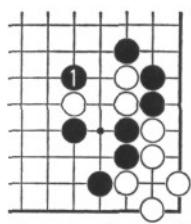
### *Variation*



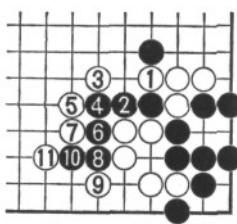
*Ans. to Prob. 2*



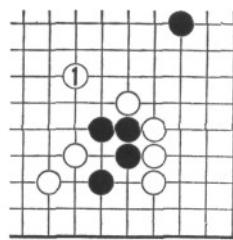
*Ans. to Prob. 3*



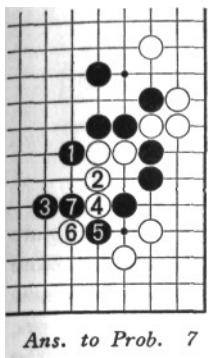
*Ans. to Prob. 4*



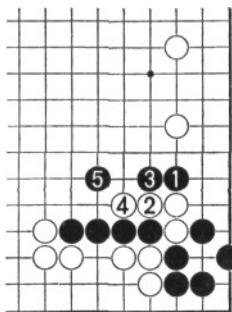
*Ans. to Prob. 5*



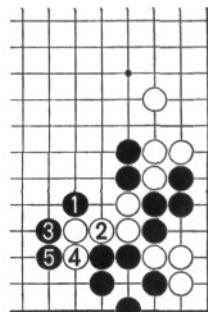
*Ans. to Prob. 6*



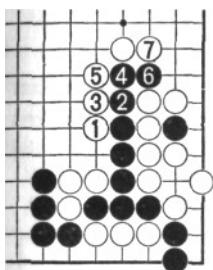
*Ans. to Prob. 7*



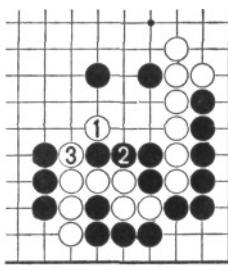
*Ans. to Prob. 8*



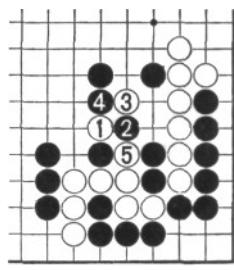
*Ans. to Prob. 9*



*Ans. to Prob. 10*



*Ans. to Prob. 11*



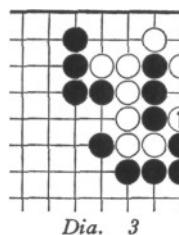
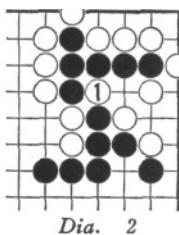
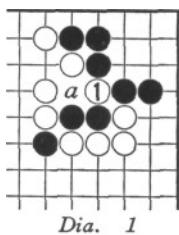
*Variation*

### 3. AMPUTATE THE CUTTING STONES

The theme of this chapter is the same as that of the last: the capture of small groups of enemy stones. The difference is that whereas before the idea was to capture them by blocking their escape route, the idea now is to capture them by detaching them from a larger body of enemy stones, and the techniques differ accordingly. Usually the target stones will be cutting stones, but we shall not be finicky about going after non-cutting stones on occasion for the sheer profit of capturing them.

#### Snap-Back.

Snap-backs are the first really interesting tactics of the game that most players learn; perhaps you can remember when you first encountered one. For those who may not be sure of the term, the next three diagrams present a quick review.

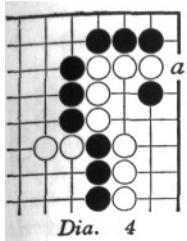


*Dia. 1.* White 1 is a snap-back capturing move. It puts two black stones in atari. Black could take White 1 by playing *a*, but White would just replay at 1 and capture three stones.

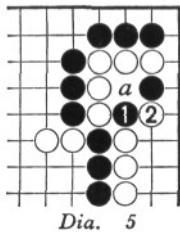
*Dia. 2.* This is another snap-back pattern. Again Black could capture, but White would just recapture.

*Dia. 3.* This is a snap-back at the edge.

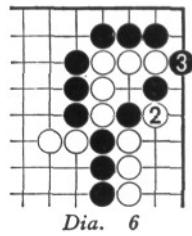
Now for some applications.



Dia. 4



Dia. 5



Dia. 6

*Dia. 4.* Black has an opportunity to capture five stones, but surprisingly many players would fail to see it and link underneath at *a* instead.

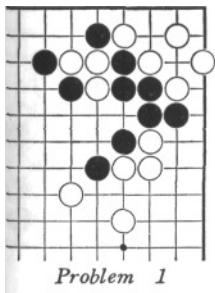
*Dia. 5.* Any capture must begin with the cut at 1. At first, however, it looks as if Black 1 fails, for White 2 is atari against it and Black cannot connect at *a*.

*Dia. 6.* But all is well. Black answers 2 at 3 and has the five stones in a snap-back.

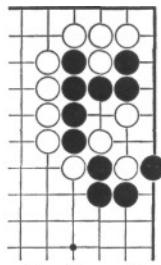
*Problem 1.* Black to play and capture.

*Problem 2.* White to play. The cutting has already been done. The question is how to finish the job.

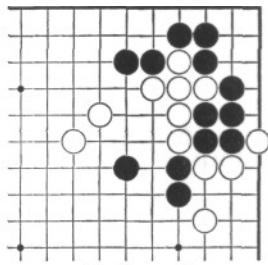
*Problem 3.* Black to play. White seems to have escaped, but...



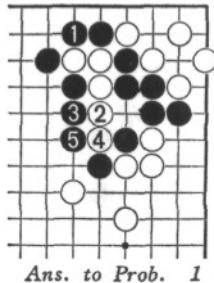
Problem 1



Problem 2



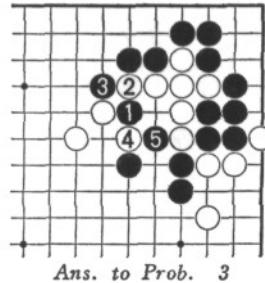
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

*Answer to problem 1.* Black 1 and 3 are decisive.

*Answer to problem 2.* White 1 forces the snap-back. If Black plays 2 at 3, White can connect at *a*.

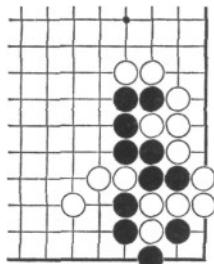
If White played 1 at 3, Black *a* would win.

*Answer to problem 3.* Black 1 cuts White in two, and 5 completes the job.

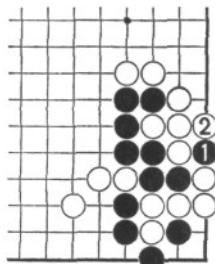
## The Throw-In Tesuji.

*Dia. 1.* As usual, Black needs to find a way to capture the cutting stones. This position calls for a throw-in tesuji.

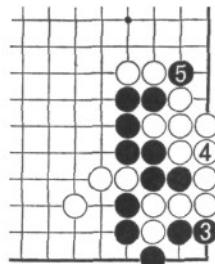
*Dia. 2.* Black 1 is the throw-in, a kind of sacrifice that deprives the enemy of essential liberties. White captures at 2, but...



*Dia. 1*



*Dia. 2*

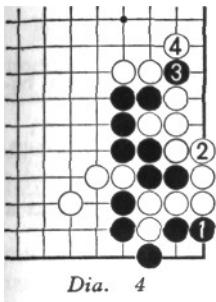


*Dia. 3*

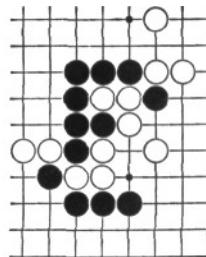
*Dia.* 3. Now Black gives atari at 3, and if White connects at 4, Black 5 is atari against the whole group.

*Dia.* 4. This shows, for comparison's sake, what happens if Black plays 1 without making the throw-in. White has one more liberty on the side than he did before, and can answer 3 at 4. Black's position is ruined.

As the following problems will show, throw-in tesuji are not confined to the edge of the board.



*Dia.* 4

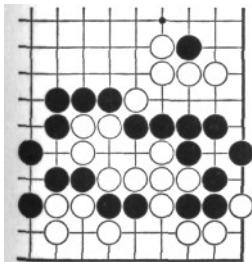


*Problem* 1

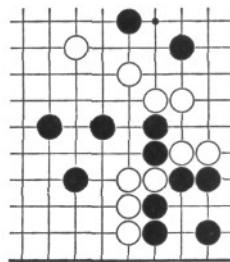
*Problem* 1. Black to play and capture the cutting stones.

*Problem* 2. Black to play and capture the cutting stones.

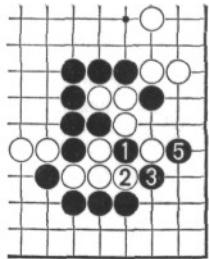
*Problem* 3. White to play. A throw-in will set up a short ladder.



*Problem* 2

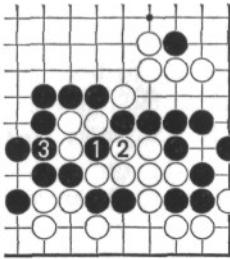


*Problem* 3

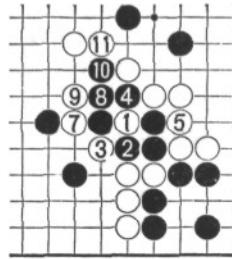


*Ans. to Prob. 1*

④ connects



*Ans. to Prob. 2*



*Ans. to Prob. 3*

⑥ connects

*Answer to problem 1.* Black 1 is the throw-in.

*Answer to problem 2.* After Black 3, White cannot connect because of shortage of liberties.

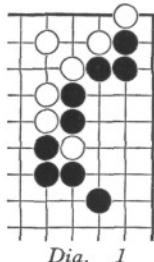
*Answer to problem 3.* White 1 is the liberty-destroying throw-in, and White has stones in just the right places to make the ladder work. This is actually a kind of squeeze sequence, so it Serves as a good introduction to the next topic.

## The Squeeze Tesuji.

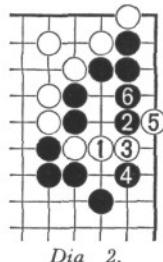
*Dia. 1.* Take a good look at the black group on the right side and see if you can find any way for White to capture part of it.

*Dia. 2.* White 1 is the first move to examine. Black 2 is the correct defense, and against White 3, Black can play 4. White 5 is a nice try, but if Black answers at 6, White is one move down in the fight and there is nothing he can do about it.

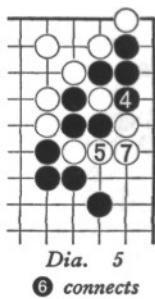
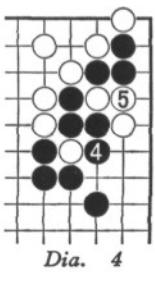
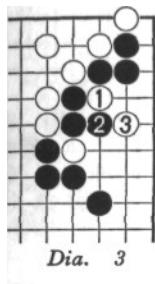
So White 1 does not work. What else is there?



*Dia. 1*



*Dia. 2.*



*Dia. 3.* Here is the tesuji combination. White 1 looks like a cut doomed to failure, but then comes the startling play at 3, and suddenly Black is in atari and in trouble.

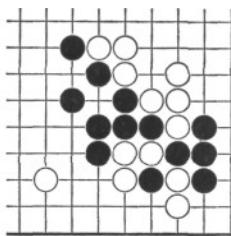
*Dia. 4.* The best Black can do is capture at 4 and let White connect at 5. White now has three liberties as against two for the black stones in the corner.

*Dia. 5.* If Black captures the wrong stone with 4, White comes out of atari at 5. Connections at 6 and 7 leave White ahead, four liberties to three, and Black has lost everything.

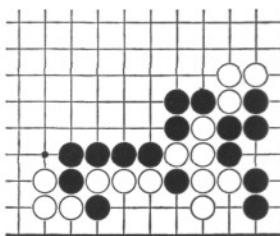
White's technique in these diagrams is called *shibori* in Japanese, a word meaning 'to wring out'. It uses sacrifice stones to wring the liberties out of an enemy position and squeeze it into a compact mass.

*Problem 1.* Black to play and capture the corner.

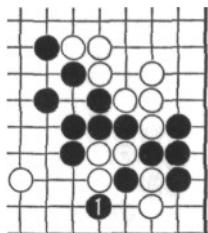
*Problem 2.* Black to play and capture on the lower side. This is a different squeezing pattern, but an easy one.



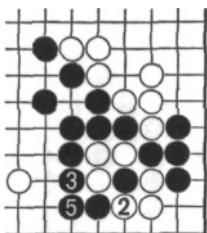
*Problem 1*



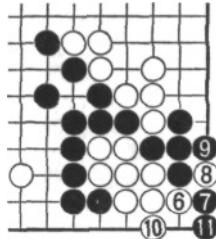
*Problem 2*



*Ans. to Prob. 1*



*Dia. Ia*



*Dia. Ib*

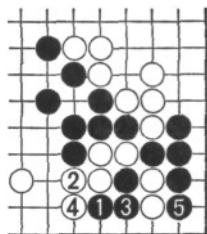
*Answer to problem 1.* Black 1 is the squeeze tesuji.

*Dia. Ia.* If White captures at 2, Black gives atari and connects. This puts him one move ahead in the corner.

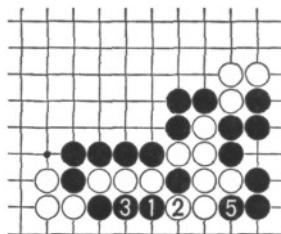
*Dia. Ib.* No matter what antics White tries next, he cannot win the fight.

*Dia. Ic.* So White's best response, when Black plays 1, is the sequence shown here.

*Answer to problem 2.* Black 1 is a common squeeze tesuji. After 5 Black leads the fight, three liberties to two.



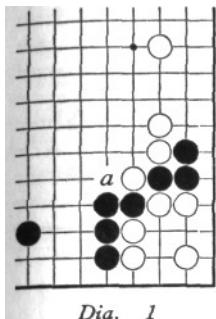
*Dia. Ic*



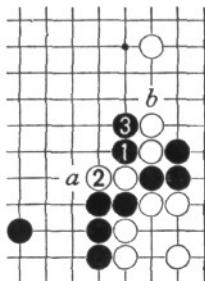
*Ans. to Prob. 2  
④ connects*

## Ladder-Building.

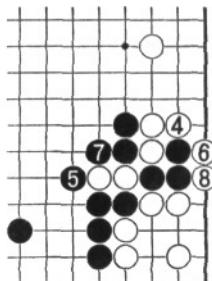
*Dia. 1.* Black has three stones trapped on the right side. Is there a way to save them, or should he give up and play *a?*



Dia. 1



Dia. 2



Dia. 3

*Dia. 2.* There is a way. Black 1 and 3 threaten ladders at *a* and *b*, and if White defends on one side, Black will get him on the other.

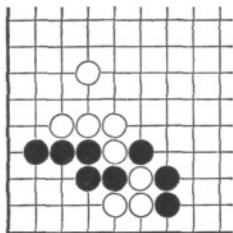
Of course, if the ladder at *a* does not work, then this tesuji is useless.

*Dia. 3.* Assuming the ladder does work, the best defense White has locally is to play 4 and link up underneath. Black need not answer White 8. Even without connecting, he has done much better than if he had played *a* in Dia. 1.

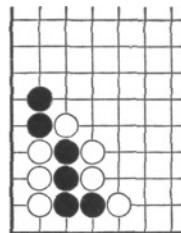
The next two problems are like this example, except that instead of two ladders, you will have to set up a ladder and something else. Assume the ladders work.

*Problem 1.* White to play.

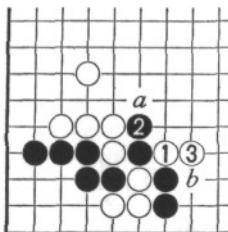
*Problem 2.* Only two liberties! Black to play.



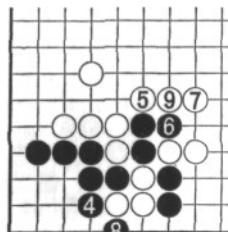
Problem 1



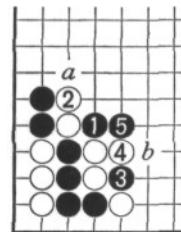
Problem 2



*Ans. to Prob. 1*



*Dia. 1a*



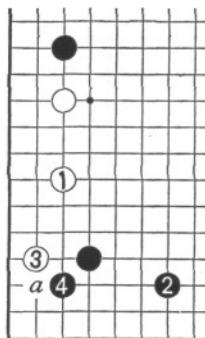
*Ans. to Prob. 2*

*Answer to problem 1.* White 1 and 3 threaten a ladder at *a* and a capture at *b*.

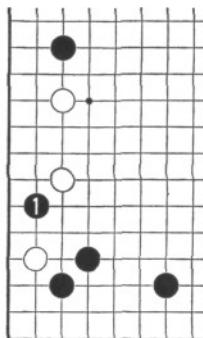
*Dia. 1a.* Even if the ladder does not work, the moves in the answer diagram are correct, for White can still get a strong position by playing 5 and 7.

*Answer to problem 2.* Black 5 threatens *a* and *b*.

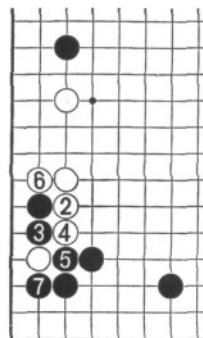
## The Placement Tesuji



*Dia. 1*



*Dia. 2*

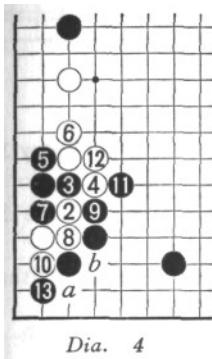


*Dia. 3*

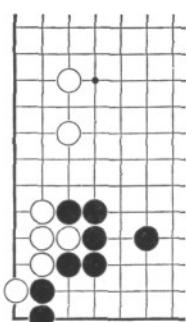
*Dia. 1.* The classic example of this tesuji occurs after the joseki shown. If White does not get around to playing *a*, Black has a way to pick off one third of his group.

*Dia. 2.* Black 1 is the tesuji. The name 'placement' comes from the fact that it is placed within White's position, not in contact with any other stones.

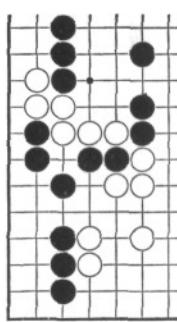
*Dia. 3.* White's almost invariable reply is to give up his stone by playing 2, 4, and 6. Black has made a large capture, although in gote.



Dia. 4



Problem 1



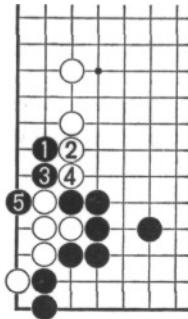
*Problem 2*

*Dia. 4.* What if White makes this diagonal move with 2, and endeavors some resistance? Black 3, 5, and 7 follow, and by making the double hane at 13 Black wins the fight. If that is not clear now, and it probably is not, it will become clear in chapter five. Woe be to Black, however, if he plays 13 at  $\langle z \rangle$ , for then White 13 will threaten *b* and White will win the fight.

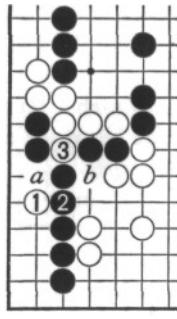
Apart from complications like Dia. 4, there is the question of how soon to play Black 1 in Dia. 2. Big as it is, it is not usually worth giving up sente to make in the opening.

*Problem 1.* Black to play and capture the white stones in the corner.

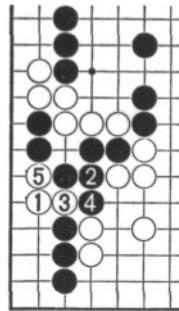
*Problem 2.* White to play on the left side. He has six stones to rescue.



*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Dia. 2a*

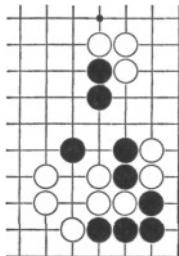
*Answer to problem 1.* If White played 2 at 3, Black would play 3 at 2 and the result would be worse for White.

*Answer to problem 2.* If Black answers correctly at 2, White 3 makes *a* and *b* miai, and White has saved his stones.

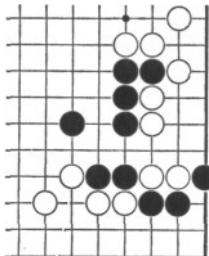
*Dia. 2a.* If Black plays 2, White pushes through at 3 and gets the whole lot.

## More Problems.

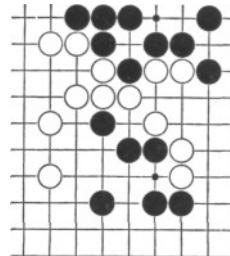
The following twelve problems review the techniques of this chapter and introduce some other similar ones. The object in each is capture, and the target will always consist of at least two enemy stones.



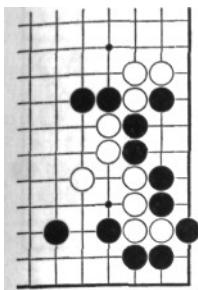
*1. Black to play*



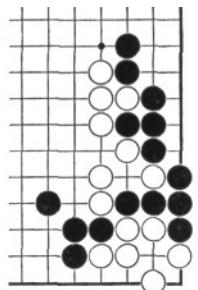
*2. Black to play*



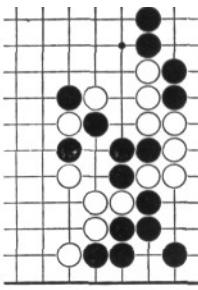
*3. Black to play*



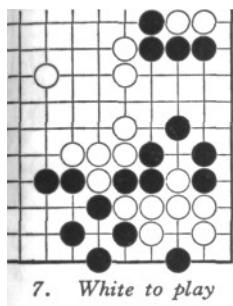
**4. White to play**



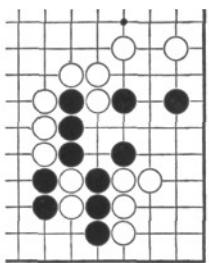
5. White to play



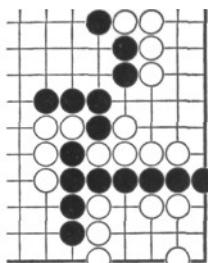
**6. White to play**



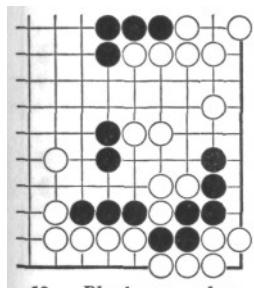
7. White to play



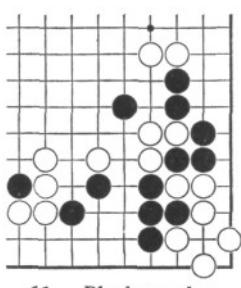
8. *White to play*



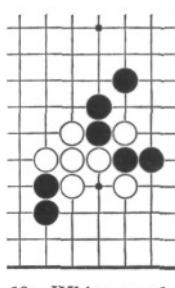
*9. Black to play*



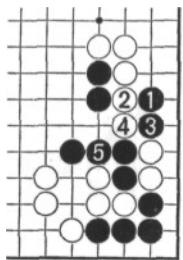
*10. Black to play*



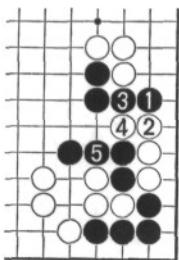
*11. Black to play*



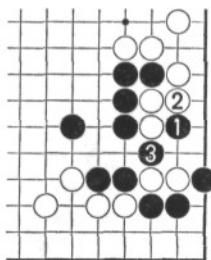
12. White to play



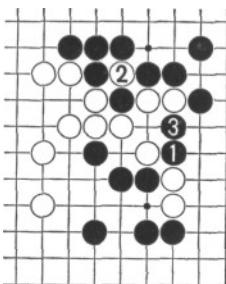
Ans. to Prob. 1



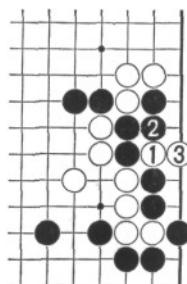
Variation



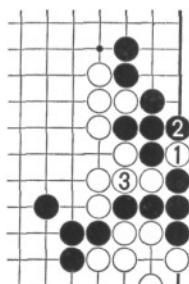
Ans. to Prob. 2



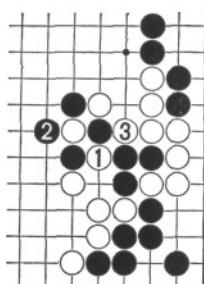
Ans. to Prob. 3



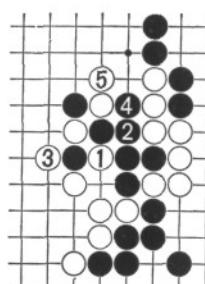
Ans. to Prob. 4



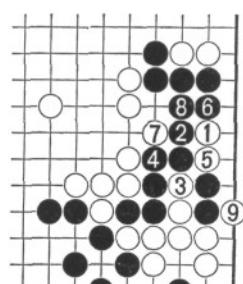
Ans. to Prob. 5



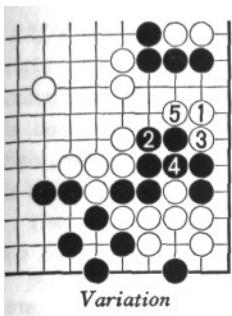
Ans. to Prob. 6



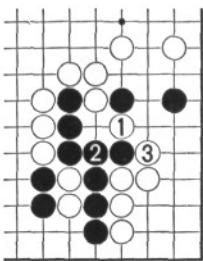
Variation



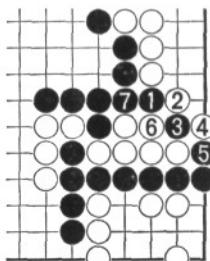
Ans. to Prob. 7



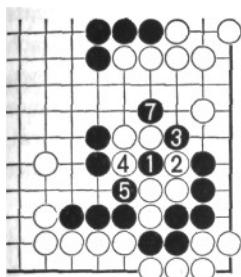
Variation



Ans. to Prob. 8

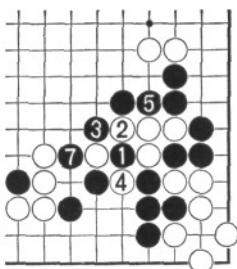


Ans. to Prob. 9



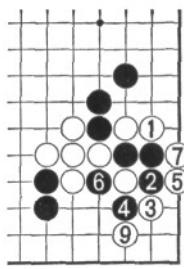
Ans. to Prob. 10

⑥ connects



Ans. to Prob. 11

⑥ connects

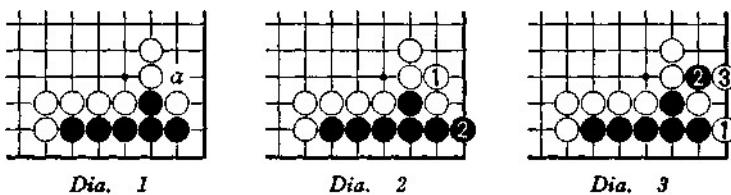


Ans. to Prob. 12

⑧ connects

## 4. KO

Many go players dislike ko fights; understandably so, for they are forced not only to think about the local situation, which is likely to be complicated enough, but to weigh it against all the ko threats available to both players, to weigh those ko threats against each other, and preferably to do so before the ko begins. It follows, therefore, that if you can start a ko fight that you have a fair chance of winning, you may have scored a psychological, as well as a tactical, triumph. There are many simple tesuji for causing ko. Consider the following:



*Dia. 1.* In this position Black seems to be alive. To start with, he is threatening to capture a stone with *a*.

*Dia. 2.* And even if White connects, Black 2 makes a living shape. White, however, should be in no rush to play 1, an endgame move, but should leave the position as it stands in Dia. 1. Black *a* in that diagram is gote.

*Dia. 3.* Choosing a time when he is backed up by an adequate number of ko threats, White can unleash the double-hane tesuji at 1. Against Black 2, White plays 3 and the ko is on. This could be a nasty surprise for Black.

If White loses the ko, then of course he takes a certain loss on the right edge as compared with Dia. 2, but that should be more than compensated for by his ko threat. If Black loses, his whole group is dead; that will be harder to compensate for. This kind of ko fight, where you risk little or nothing and your opponent risks a lot, is the most fun and the most profitable.

The next five problems feature some more easy tesuji for starting ko fights of this one-sided variety.

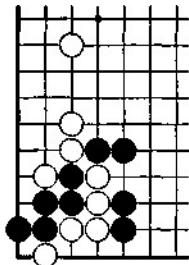
*Problem 1.* White to play in the corner.

*Problem 2.* White to play. If he wins the ko, all his groups will be united.

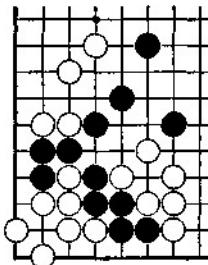
*Problem 3.* Black to play.

*Problem 4.* White to play. What can a group with only two liberties do?

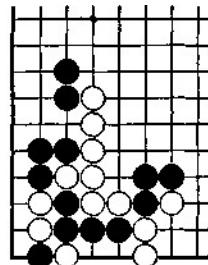
*Problem 5.* Black to play and kill.



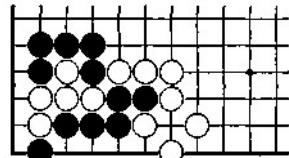
*Problem 1*



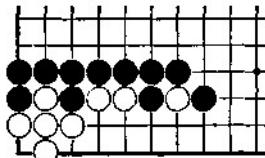
*Problem 2*



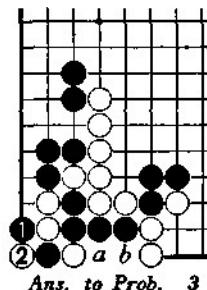
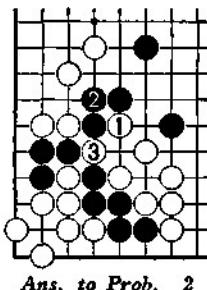
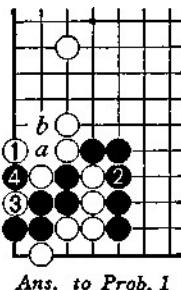
*Problem 3*



*Problem 4*



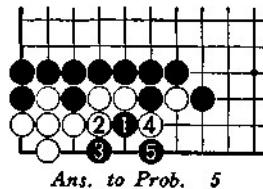
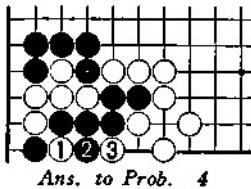
*Problem 5*



*Answer to problem 1.* White 1 is the only move. If White played 1 at 4, Black would exchange *a* for *b*, then fill the liberty at 2 and win unconditionally.

*Answer to problem 2.* White 1 is the familiar clamping tesuji.

*Answer to problem 3.* Black 1 is a common tesuji for making ko in the corner. Black's risk in this ko fight is pretty close to nil, compared with White's. Black must not, of course, use 1 to capture at *a* and get himself ataried by *b*.

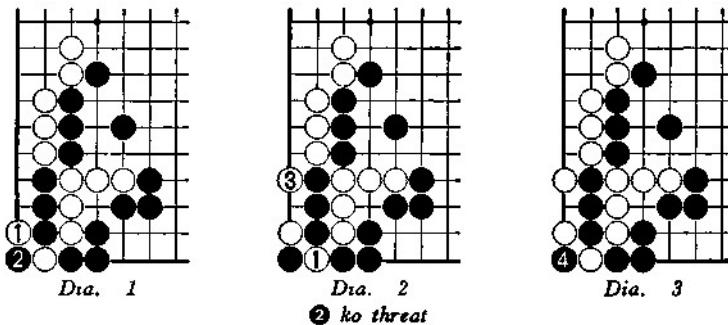


*Answer to problem 4.* A throw-in at 1 is the means to ko. *Answer to problem 5.* The double-hane tesuji appears again. Black 1 at 3 looks tempting, but it fails if White answers at 1.

## Indirect Ko

The ko fights in the previous section were direct ones; either side could finish the ko and win by ignoring just one enemy ko threat. By no means all ko fights, however, are like this. There are many interesting types of indirect ko fights, the main ones being the following.

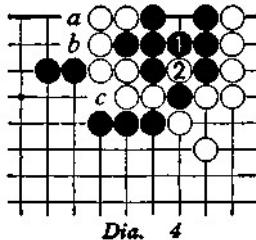
### Multi-Step Ko



*Dia. 1*, White 1 begins a ko to capture the three black stones in the corner and save the five white stones they are cutting off. For Black this is a direct ko; if he ignores one white ko threat, he can capture White 1 and the ko will be over. For White, however, this is a two-step ko.

*Dia. 2*. Assuming White gets to recapture at 1, Black will make his first ko threat with 2. Suppose White ignores it; he cannot connect the ko, of course. The best he can do is to give atari at 3, moving from step one to step two.

*Dia. 3*. Black recaptures at 4, and if White is to win the ko he will have to ignore a second black ko threat later on.



*Dia. 4.* There is no limit to the number of extra moves one side may have to make. In this diagram, for example, Black starts a three-step ko with 1. He will have to ignore three white ko threats, in order to play *a*, *b*, and *c*, if he is to win it. For White, the ko is direct.

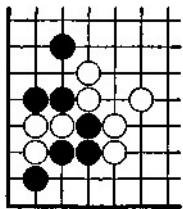
Needless to say, the player who is behind in a multi-step ko is at a big disadvantage. He should not even start the ko unless he can see that he has a large enough surplus of ko threats to make a profit out of it, or unless the situation is desperate.

If you are faced with a multi-step ko and do not have the ko threats, or the confidence, to go through with it, then the best thing to do is to leave it alone for the time being, but try to shift the balance of ko threats in your favor. If your opponent has to take time out from the midst of operations elsewhere to go back and erase the ko, that will be the same as if he had ignored one of your ko threats, and you will not have had to ignore any of his.

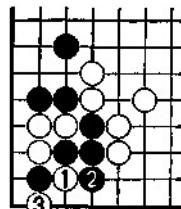
## Two-Stage Ko.

*Dia. 1.* This corner position arises frequently. White's three stones appear to be lost, but there is a way for him to make a ko.

*Dia. 2.* White 1 and 3 are the tesuji combination.



Dia. 1

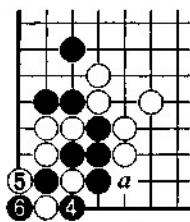


Dia. 2

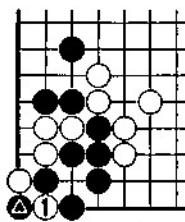
*Dia. 3.* Black captures at 4, but White gives atari at 5. If Black now connects, White *a* causes a direct ko. It is better for Black to capture at 6, for then the ko is indirect.

*Dia. 4.* This is a two-stage ko. After making a ko threat and having Black answer it, White can recapture at 1 and the two players can fight back and forth at 1 and  $\Rightarrow$ : stage one.

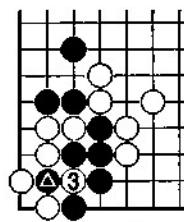
*Dia. 5.* If White ignores a black ko threat his next play is 3, and the ko will be fought back and forth at 3 and  $\Rightarrow$ : stage two. White will have to ignore a second ko threat in order to win the ko.



Dia. 3



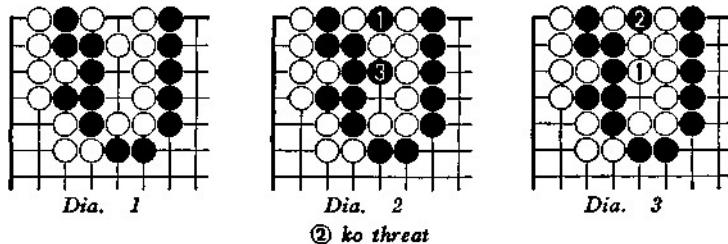
Dia. 4  
② ko threat



Dia. 5

A two-stage ko is better for the player behind than a two-step ko, because after he ignores the first ko threat and moves from stage one to stage two, the ko becomes direct for him and indirect for his opponent.

## Thousand-Year Ko



*Dia. 1.* This is one example of what is called a thousand-year ko. Notice first of all that if White connects the ko as it stands, the result is a seki.

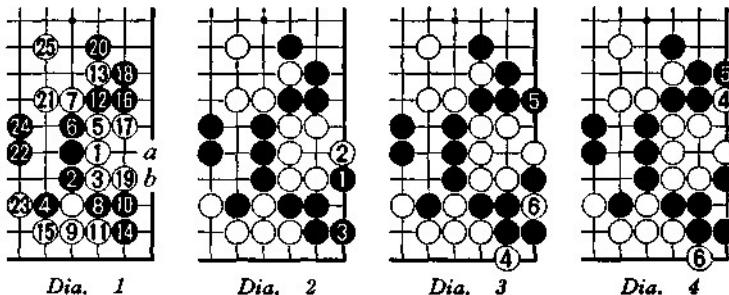
*Dia. 2.* Suppose that Black wants to capture White. He must take at 1, ignore a ko threat, fill the common liberty at 3, then ignore another ko threat in order to win. For him, that is, the ko is a two-step ko.

*Dia. 3.* If White wants to capture Black, then he must assume the responsibility of filling the common liberty at 1. Unfortunately, this helps Black by giving him a direct ko instead of a two-step one, and furthermore, White has to find the first ko threat.

From diagrams 2 and 3 it is clear that even when Black and White both want to fight the ko, each of them would rather have it started by the other player. This may lead to the position's being left as it is in Dia. 1 for a long time, which accounts for the name 'thousand year'. If the game ends with neither player willing to start the ko, then White must connect and the position becomes a seki. Of course, if either player wants or needs to win the ko badly enough he can shoulder the burden and start it, but he should make sure of his ko threats first.

## Double Ko

A double ko is the ultimate variety of indirect ko. It is so indirect that it is not even a ko at all in the ordinary sense, but just a source of ko threats.

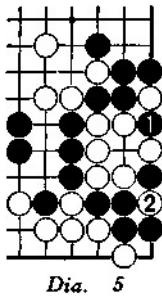


*Dia. 1.* This is a currently popular variation of the avalanche joseki. After 25 Black has to make an extension up the right side, for his three stones in the corner are dead. If he plays *a*, for example, White plays *b* and Black cannot win the fight. White 6 can be used as a safe response to any other move that Black tries.

*Dia. 2.* What happens, then, if Black takes White's point for himself with 1? This leads to a double ko. White 2 is necessary, and then Black plays 3.

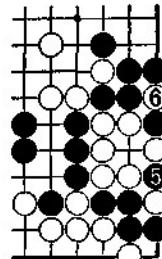
*Dia. 3.* If White now approached from the outside with 4, Black would do the same with 5, and he would have a two-step ko. Considering the value of the stones involved, even a two-step ko would be a serious threat to White. White's play in this diagram is therefore ill-advised.

*Dia. 4.* Before rilling the liberty at 6, White should exchange 4 for 5, and this makes a double ko. Now White cannot lose.



Dia. 5

③ *ko threat*



Dia. 6

④ *answers ③*

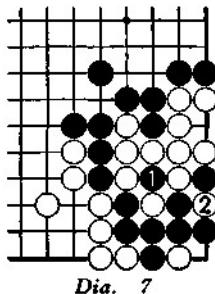
*Dia. 5.* If Black takes the upper ko with 1 to put White into atari, White takes the lower ko with 2 and regains his two liberties. Since his corner is in atari, Black does not have time to fill the upper ko; he must make a ko threat.

*Dia. 6.* White answers the ko threat, and Black recaptures at 5. But White recaptures at 6, and Black cannot fill the lower ko, for that would be putting himself in atari. All he can do is to make another ko threat, then repeat Dia. 5.

In short, diagrams 5 and 6 could be repeated over and over, with Black making all the ko threats. Eventually he would run out and have to give up. In practice, Black will not go through diagrams 5 and 6 even once, so as not to waste ko threats in a hopeless cause.

Although Black cannot win the double ko, he can still get something out of it. He can use diagrams 5 and 6 as ko threats in some other ko fight. This gives him an infinite supply of ko threats, so he can be sure of winning any ko fight that is not larger than the roughly thirty points involved here.

*Dia. 7.* A double ko can also be a seki, as this example shows. Capturing and recapturing at 1 and 2 always leaves both sides with two liberties, and neither side can ever connect at either place. If this



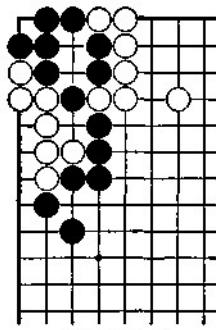
Dia. 7

type of double ko is combined with a ko elsewhere on the board, it serves as an infinite source of ko threats for both sides, and if neither player is willing to give in in such a triple ko, the game is cancelled. In the following three problems, first try to make a ko, then see if you can identify the kind of ko you have made.

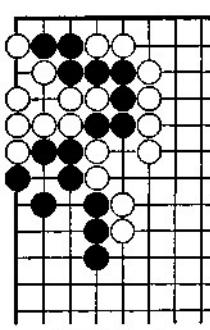
*Problem 1.* White to play.

*Problem 2.* Black to play.

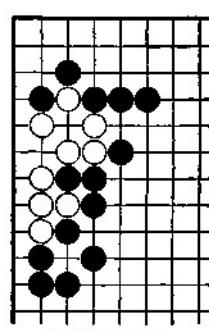
*Problem 3.* Black to play. To make a direct ko out of this would be a big failure.



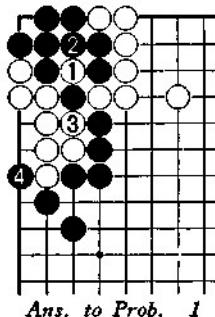
Problem 1



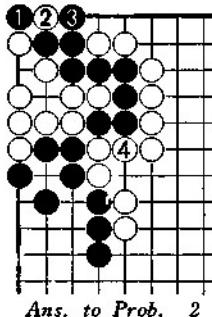
Problem 2



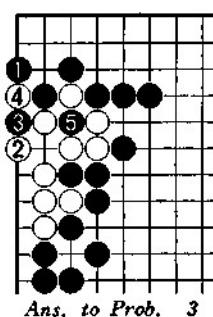
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

**5 at 1**

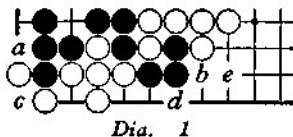
*Answer to problem 1.* If Black plays 4, then the ko is a two-step one in White's favor. Black may prefer to play 4 elsewhere, seeking to create ko threats and leaving the ko as a three-step one.

*Answer to problem 2.* This is a two-stage ko, again in White's favor. The throw-in at 1 is necessary; if Black plays 1 at 3, then White 1, Black 2, White 4, Black takes two stones, White recaptures, and Black has no move.

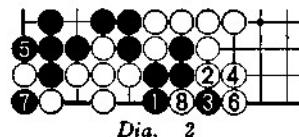
*Answer to problem 3.* Black 1 creates a double ko. White has a false eye, and his group is dead.

## The Best Ko.

In many positions ko can be reached in two different ways, and it is important to choose the best way. This might be the way that gives you a direct ko instead of an indirect one, or that does the opposite to your opponent, or it might be the way that forces your opponent to hunt for the first ko threat, as in the following example.



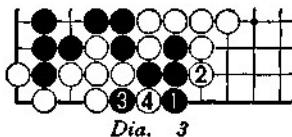
*Dia. 1*



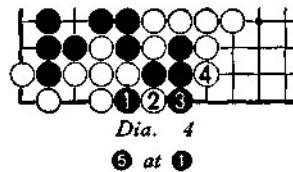
*Dia. 2*

*Dia. 1.* Black to play. The first thing to observe is that he cannot start with *a*: White *b*, Black *c*, White *d*, and Black is in atari. Nor can he get any more liberties by pushing out to *b*, for White *e* would still leave him with three. In fact, *b* would be a bad mistake, spoiling what chance Black does have, as perhaps you can see.

*Dia. 2.* This Black 1 is not much better. Black seeks ko with 3, but White answers at 4, taking no chances. The result is a double ko that Black cannot win.



*Dia. 3*



*Dia. 4*

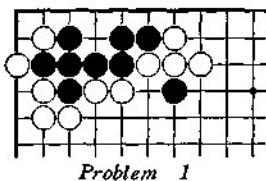
5 at 6

*Dia. 3.* How about 1 here? Now Black is getting closer, and after 2 and 3 he has a direct ko. The only thing he has done wrong is to saddle himself with the burden of making the first ko threat.

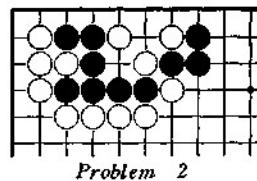
*Dia. 4.* His best way is to start with the throw-in at 1. Now, after White 4, he gets to make the first ko capture and White has to find the first ko threat.

*Problem 1.* Black to play and live in ko, forcing White to make the first ko threat.

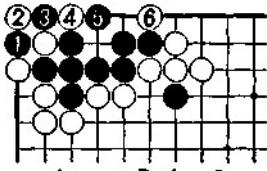
*Problem 2.* Black to play and make ko—the best way.



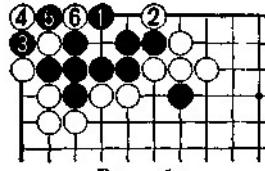
*Problem 1*



*Problem 2*

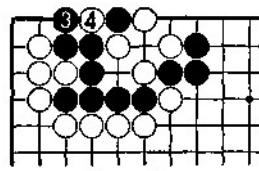
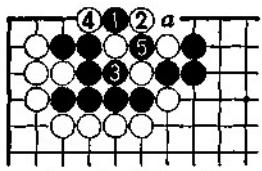


**⑦ at ④**



*Answer to problem 1.* The key move is 5, but Black starts by making throw-ins at 1 and 3. That gives him the first ko capture with 7.

*Dia. 1a.* If Black starts with 1, White gets to make the first ko capture and Black has to look for the first ko threat.



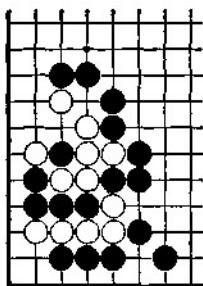
*Answer to problem 2.* Black 1 and 3 cause a direct ko in which White has to make the first ko threat. White cannot play 2 at 5, (Black plays 3 at 4 or a), and Black cannot play 1 at a, (White plays 4 and wins).

*Dia. 2a.* If Black plays 3 incorrectly, he faces an indirect ko in which he has to find the first ko threat.

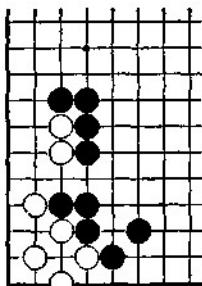
## More Problems.

Most of the problems so far in this chapter have been rather easy, so to balance things out, here are a few harder ones. The object in each is to save a group of friendly stones, or capture a group of enemy stones, or do both. All of the kos are direct, but in

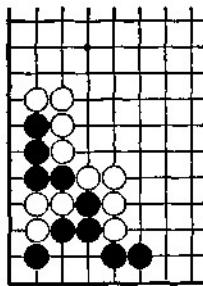
problems number 2 and 6 there are two ways to get ko.



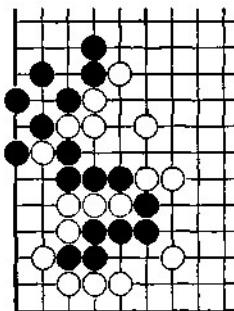
1. *Black to play*



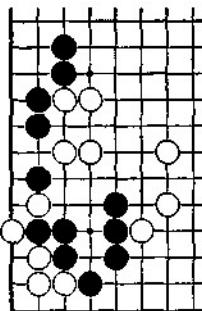
2. *Black to play*



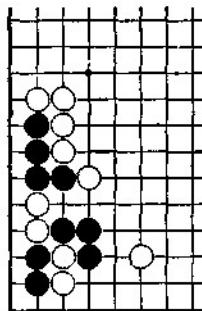
3. *White to play*



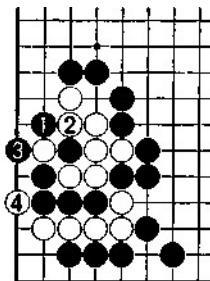
4. *Black to play*



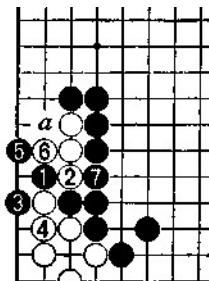
5. *White to play*



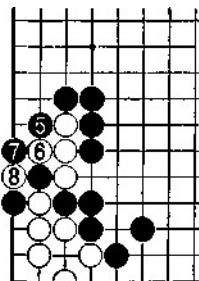
6. *White to play*



*Ans. to Prob. 1*

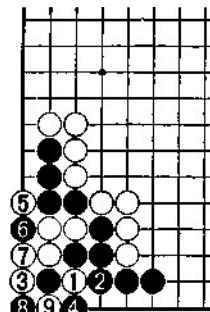


*Ans. to Prob. 2*

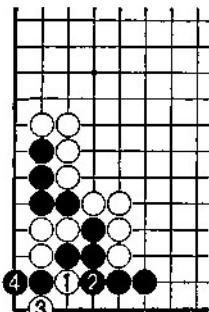


*Variation*

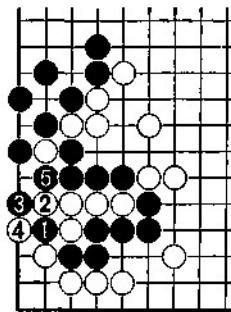
In the first answer to problem 2 Black perfects his outer wall with 7, but White gets a ko threat at a. In the variation White has no such ko threat, but if he wins the ko anyway he can then push through the gap in Black's wall and cut.



*Ans. to Prob. 3*

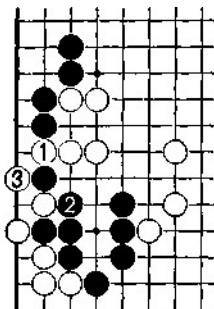


*Failure*

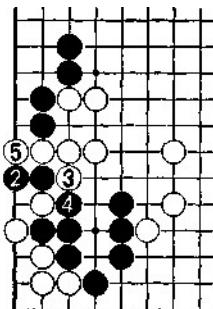


*Ans. to Prob. 4*

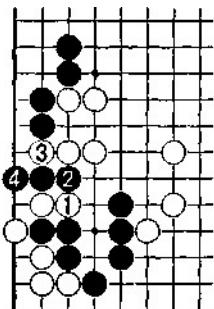
If Black played 4 at 9 in the answer diagram to problem 3 there would be no ko—White would win outright.



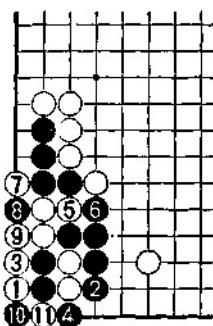
Ans. to Prob. 5



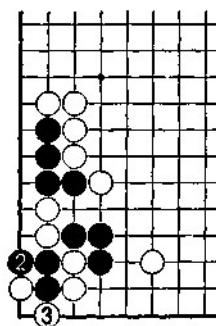
Failure for Black



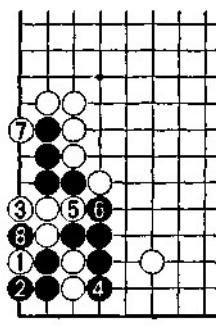
Failure for White



Ans. to Prob. 6



Black risks all



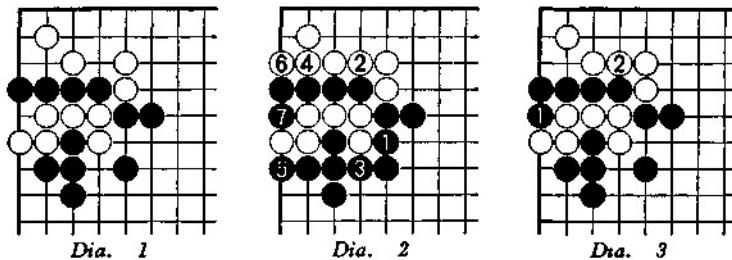
Inferior

The inferior answer lets Black make the first ko capture.

## 5. WHEN LIBERTIES COUNT

Of course liberties always count, but this is especially so when two opposing groups are locked in combat, neither able to form two eyes and hence each trying to capture the other. This chapter covers the principles and tesuji involved in such fights.

Frequently, who wins the fight is just a question of who has the more liberties.



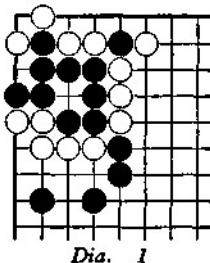
*Dia. 1.* The black and white groups touching the left edge have four liberties apiece. Since they are even, the side that plays first will win.

*Dia. 2.* If Black plays first, he ends by capturing White. Notice that he fills White's outside liberties first, saving the inside one for last.

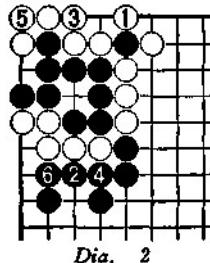
*Dia. 3.* If Black started from the inside, both groups would lose one liberty and suddenly White would be ahead. To fill from the outside is the first principle in fights like this.

## Approach Moves.

In the previous example the number of moves needed to capture each group was equal to the number of its liberties, but this is not always true.



Dia. 1



Dia. 2

*Dia. 1.* In this fight White has four liberties and Black has only two, but that does not mean that White is going to win, even if he plays first. He has to make three approach moves before he can give atari and they, coupled with Black's two liberties, put Black one ahead.

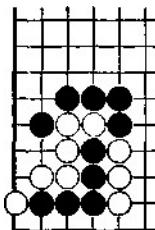
*Dia. 2.* White 1, 3, and 5 are the approach moves. Black 6 gives atari, and Black wins the fight.

In the following problems the idea is to win the fight by forcing the enemy to make approach moves.

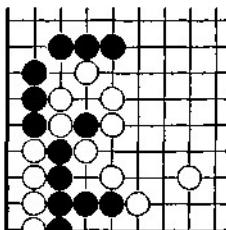
*Problem 1.* White to play.

*Problem 2.* Black to play.

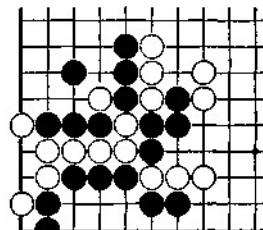
*Problem 3.* White to play.



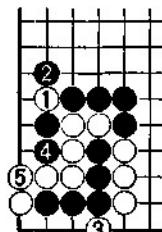
Problem 1



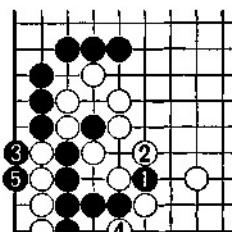
Problem 2



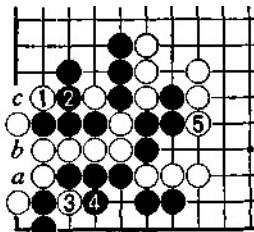
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

*Answer to problem 1.* White 1 saves the day. After White 5, Black has no move. (White 1 at 5 also works.)

*Answer to problem 2.* Black 1 is the key play. The order of 1 and 3 may be reversed.

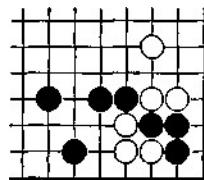
*Answer to problem 3.* This time the order of White 1 and 3 may not be reversed. If 1 at 3, then Black *a*. White *b*, and Black *c*.

## Descent To the Edge.

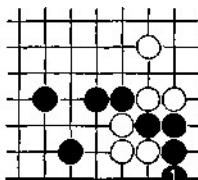
*Dia. 1.* Black is behind, four liberties to three, yet he can win this fight if he makes the right play first.

*Dia. 2.* He begins by descending straight to the edge. An extension like this is often worth an extra move. The liberties now stand at four to four.

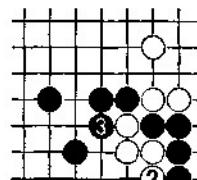
*Dia. 3.* If White plays 2 here, he loses a liberty by making an empty triangle. After 3, Black leads, three liberties to two.



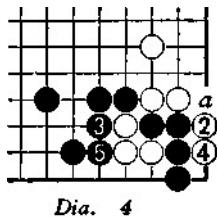
*Dia. 1*



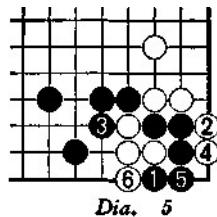
*Dia. 2*



*Dia. 3*



Dia. 4



Dia. 5

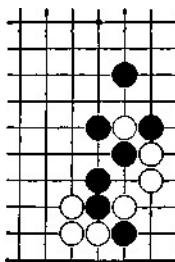
*Dia. 4.* If White plays from this side he can get no further than 4, then he has to go back and make an approach move at *a*. Again Black wins.

*Dia. 5.* If Black began with the hane at 1 instead of playing straight down, he would lose the fight. This time, after 2 to 5, White can play 6 without making an empty triangle, and Black?" goose is cooked.

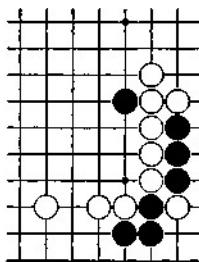
*Problem 1.* Black to play and win the corner.

*Problem 2.* White to play and win the corner.

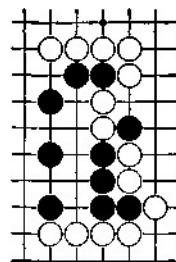
*Problem 3.* Black to play and save his isolated stone on the right side. This problem looks impossible, which is what makes it interesting.



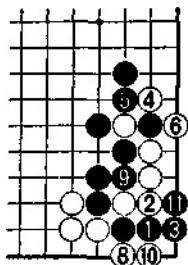
Problem 1



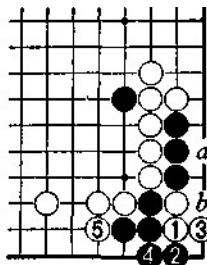
Problem 2



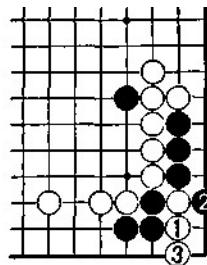
Problem 3



*Ans. to Prob. 1*  
⑦ connects



*Ans. to Prob. 2*



*Dia. 2a*

*Answer to problem 1.* After 1 and 3 Black leads the fight. White 4 and 6 come to nothing if properly handled.

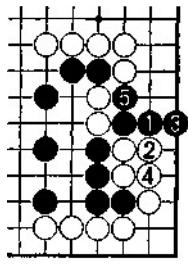
*Answer to problem 2.* White starts with 1, then descends to the edge with 3, and Black cannot get him into atari from either side. If Black next tries to make a ko with *a*, White *b* foils him.

*Dia. 2a.* A variation. White wins again.

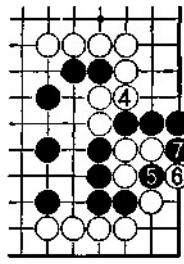
*Answer to problem 3.* Black makes straight for the edge of the board with 1 and 3, and White has no choice but to answer with 2 and 4. Now Black has enough liberties to cut at 5.

*Dia. 3a.* If White stops the cut with 4, Black wins with a throw-in.

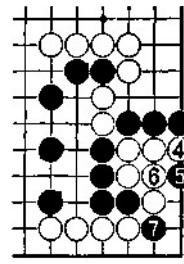
*Dia. 3b.* This is another White 4 that fails.



*Ans. to Prob. 3*

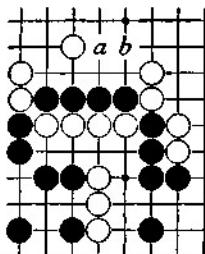


*Dia. 3a*

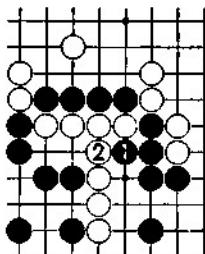


*Dia. 3b*

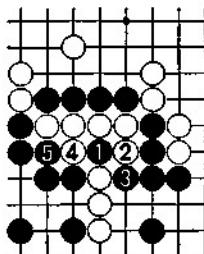
## The Throw-In Tesuji



Dia. 1



Dia. 2



Dia. 3

*Dia. 1.* If Black tries to run away with *a*, White can stop him with *b*, so he had better find some way of out-dueling the white group on the lower side.

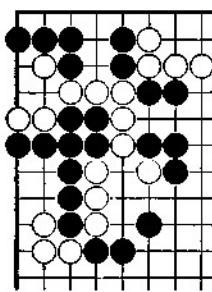
*Dia. 2.* But Black seems to be far behind. After 1 and 2, for example, he has four liberties to White's seven.

*Dia. 3.* Black must throw in a stone at 1; this tesuji devours three enemy liberties. If White connects after 5, each side has four liberties and Black, whose move is next, can win.

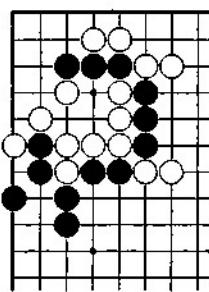
*Problem 1.* Black to play and win.

*Problem 2.* Black to play and win in the corner.

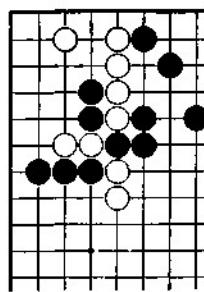
*Problem 3.* White to play and capture the two black stones. The throw-in comes a few moves deep in the sequence.



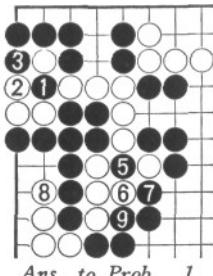
Problem 1



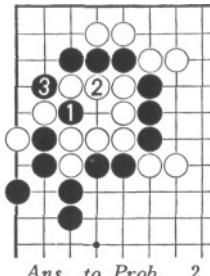
Problem 2



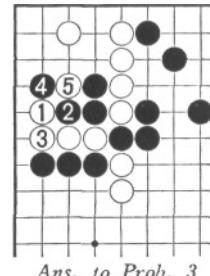
Problem 3



*Ans. to Prob. 1  
④ connects*



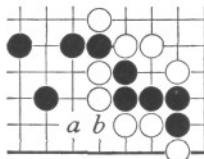
*Ans. to Prob. 2*



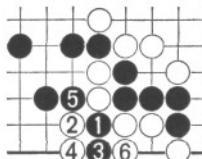
*Ans. to Prob. 3*

*Answer to problem 1.* Two throw-ins do the trick. *Answer to problem 2.* If White does not play 2, Black will. *Answer to problem 3.* After the throw-in at 5, Black will be in atari the rest of the way.

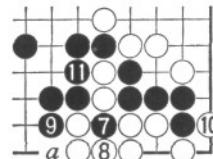
### The Two-Stone Edge Squeeze.



*Dia. 1*



*Dia. 2*

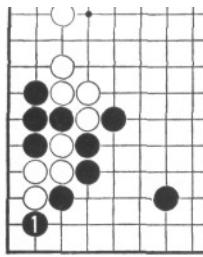


*Dia. 3*

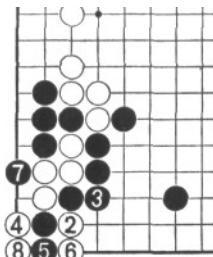
*Dia. 1.* If Black plays *a* and forces White to connect at 6, the white stones will have five liberties to three for the black ones in the corner. Black can win this fight, but he has to start with something fancier.

*Dia. 2.* The sacrificial cut at 1 is the way to reduce White's liberties. A further sacrifice at 3 is necessary, too, and then Black plays 5, which keeps White from forming an eye.

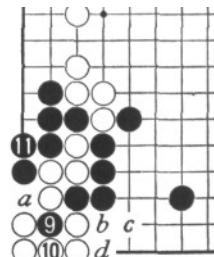
*Dia. 3.* The throw-in at 7 completes the job; if White connects after 11, Black *a* is atari. This whole operation, in which a two-stone sacrifice is used to rob White of his liberties, is called the two-stone edge squeeze.



Dia. 4



Dia. 5



Dia. 6

*Dia. 4.* The two-stone corner squeeze operates in the same way. This position comes from page 39. Black 1 begins the squeeze.

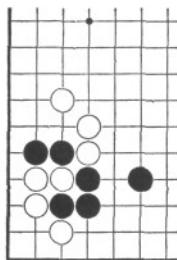
*Dia. 5.* Black sacrifices a second stone at 5, then gives atari with 7.

*Dia. 6.* The throw-in at 9 is an atari, and White has to capture at 10. Then Black just connects at 11. If White defends the eye with *a*, Black *b* leaves him with only two liberties. Or if White *c*, then Black 6, White *d*, Black *a*.

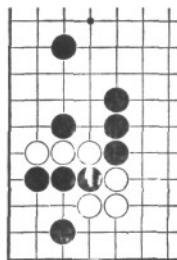
*Problem 1.* Black to play and win the corner.

*Problem 2.* White to play and win the corner.

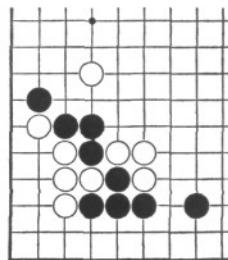
*Problem 3.* A variation of the taisha joseki. White to play: how should he, (and Black), continue?



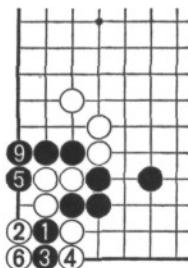
Problem 1



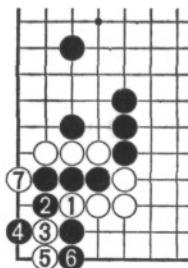
Problem 2



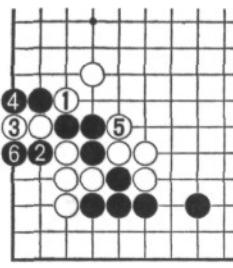
Problem 3



*Ans. to Prob. 1  
① at ①. ⑧ at ③*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

*Answer to problem 1.* The classic pattern.

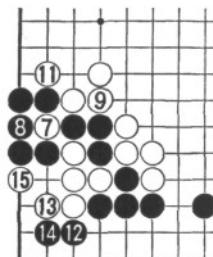
*Answer to problem 2.* White 1 reduces this to problem 1.

*Answer to problem 3.* White should cut at 1. Against Black 2, he starts the two-stone edge squeeze.

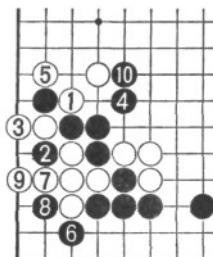
*Dia. 3a.* White has the diagonal tesuji at 15 to cope with Black 12 and 14. No matter how Black plays, he is lost.

*Dia. 3b.* Backtracking, we see that after White 3 Black must run away with 4. The sequence up to 10 is correct. Black's profit in the corner and stronger position in the center balance White's gains on the left side.

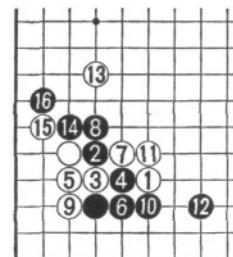
*Dia. 3c.* These are the moves leading up to this variation.



*Dia. 3a  
⑩ connects*

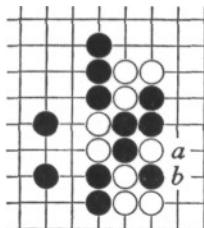


*Dia. 3b*

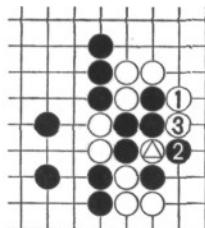


*Dia. 3c*

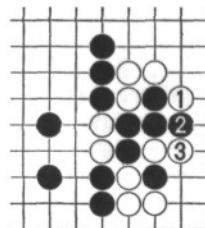
## The Fast Squeeze.



Dia. 1



Dia. 2



Dia. 3

*Dia. 1.* White's stones on the outside have only two liberties, so he has to move fast if he is going to win the fight against the black stones in the corner. He cannot afford to play *a* or *b*.

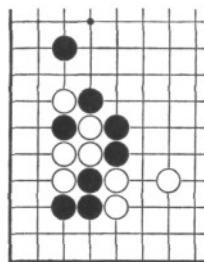
*Dia. 2.* Ignoring the atari against ↓, White plays the hane at 1. If Black captures at 2, White follows with 3 and it is all over in a flash.

*Dia. 3.* This Black 2 is clearly of no avail.

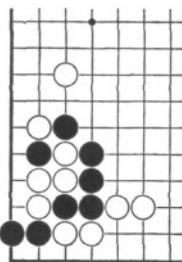
*Problem 1.* Black to play and capture the stones on the left side.

*Problem 2.* Black to play and capture the stones on the left side.

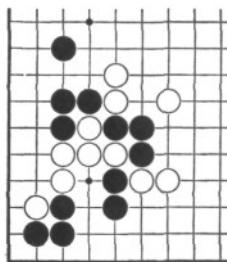
*Problem 3.* Black to play and win. The pattern is different, but the general idea is similar.



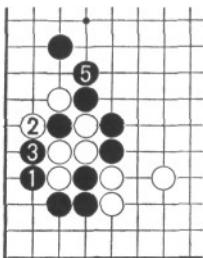
Problem 1



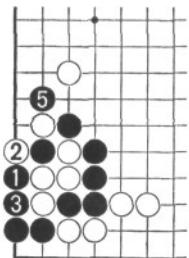
Problem 2



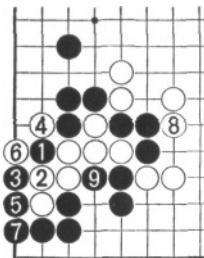
Problem 3



Ans. to Prob. 1  
④ connects



Ans. to Prob. 2  
④ connects



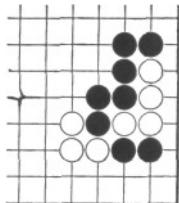
Ans. to Prob. 3

*Answer to problem 1.* Black attacks in sente with 1 and 3, then goes back to defend his own weakness at 5, leaving White surrounded and dead.

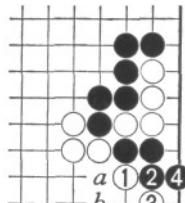
*Answer to problem 2.* The order of 1 and 3 may be reversed.

*Answer to problem 3.* Black 1 to 7 are the only way.

## The Belly Tesuji.



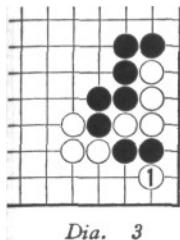
Dia. 1



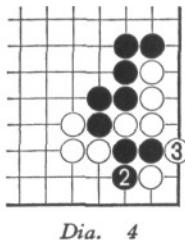
Dia. 2

*Dia. 1.* This position occurs frequently. Each side has three liberties, so it is reasonable to expect that if White plays first he can win.

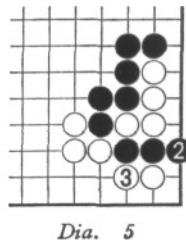
*Dia. 2.* But if he starts with the hane at 1, he will be stymied by Black 2. Perhaps he will try to start a ko with 3, (Black *a*, White *b*), but Black 4 makes even that difficult.



Dia. 3



Dia. 4



Dia. 5

*Dia. 3.* White 1 is the correct move. It comes at what is called the belly of the black stones.

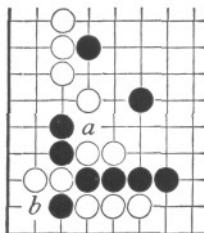
*Dia. 4.* If Black plays 2 here White links underneath with 3, and struggle as he may, Black cannot get more than two liberties.

*Dia. 5.* Or if Black plays 2 here, White 3 settles matters.

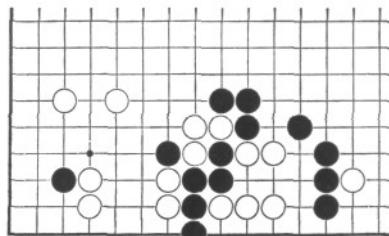
The belly tesuji turns up in a variety of situations, as in the next two problems.

*Problem 1.* Black is threatening both *a* and *b*. White to play.

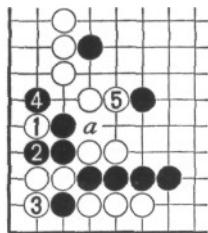
*Problem 2.* Black to play and win on the lower side.



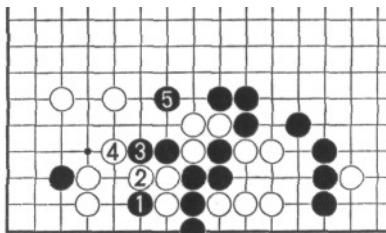
Problem 1



Problem 2



*Ans. to Prob. 1*

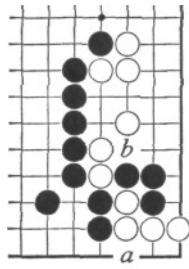


*Ans. to Prob. 2*

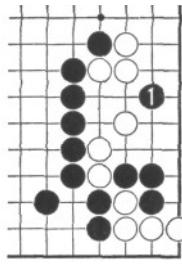
*Answer to problem 1.* White 1, the belly tesuji, defends simultaneously against Black 3 and Black *a*. After 2 to 5, Black's stones are left dead on the side.

*Answer to problem 2.* The belly tesuji gives Black the tempo to play 3, and then he can capture a total of eight white stones with 5. If Black played 3 without 1, White would fill one of his liberties on the lower edge.

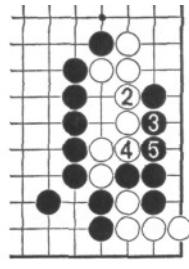
## Gaining Liberties.



*Dia. 1*



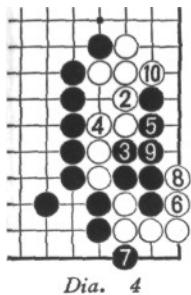
*Dia. 2*



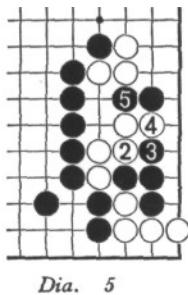
*Dia. 3*

*Dia. 1.* Both sides have four liberties, but White is a move ahead because of his having descended to the edge. If Black plays *a*, for instance, White will answer at *b* and Black will lose. Before filling White's liberties, Black needs to increase the number of his own.

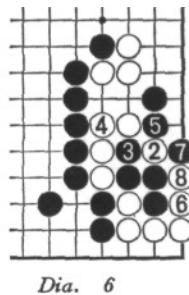
*Dia. 2.* A placement tesuji does the trick.



Dia. 4



Dia. 5



Dia. 6

*Dia. 3.* White should connect at 2, but then 3 and 5 leave Black with six liberties, just enough to win.

*Dia. 4.* Black must resist the temptation to try for an eye with 3, because that makes an empty triangle and costs him a liberty. Now he loses.

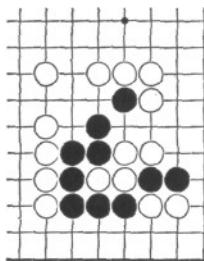
*Dia. 5.* As for White, if he tries to hold Black down with 2 and 4, Black 5 stops him short.

*Dia. 6.* White 2 in this diagram looks like a clever squeeze tesuji, but Black still comes out ahead, four liberties to three, and wins the fight.

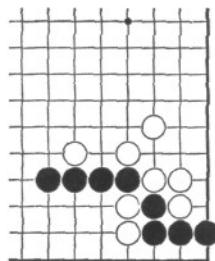
*Problem 1.* Black to play and save all his stones.

*Problem 2.* White to play. He needs one more liberty.

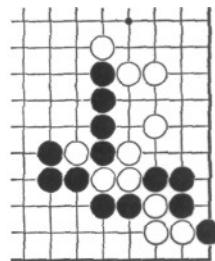
*Problem 3.* White to play. Gaining another liberty is not so hard, but remember; Black has a tesuji too.



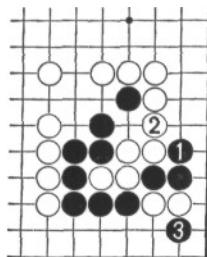
Problem 1



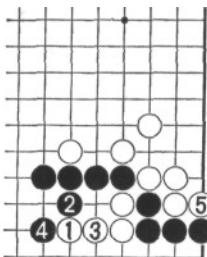
Problem 2



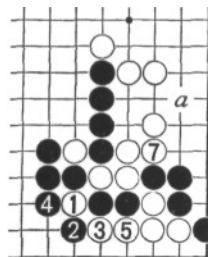
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

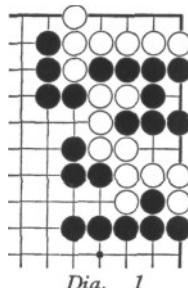
**⑥ connects**

*Answer to problem 1.* Black 1 threatens 2.

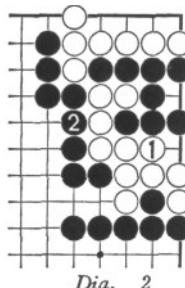
*Answer to problem 2.* The exchange up to 4 gives White four liberties, and he wins the fight with 5.

*Answer to problem 3.* White gains a liberty in sente with 1 etc., then settles the fight with 7. He could also gain a liberty by playing 1 at 3, but then Black 1, White 5, Black a, and White would lose.

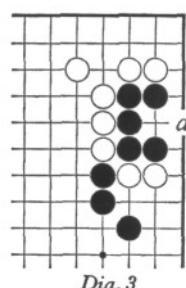
## Eyes.



*Dia. 1*



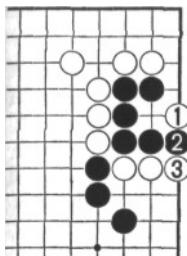
*Dia. 2*



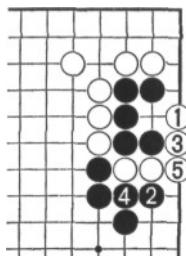
*Dia. 3*

*Dia. 1.* Eye shape is usually worth something extra. Here, for example, Black is behind in liberties, but he has an eye and White cannot bring him into atari.

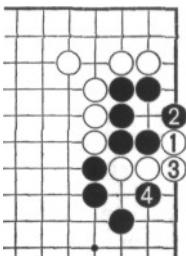
*Dia. 2.* After 2, White cannot do anything more without putting himself into atari. Black, however, could put White into atari by



Dia. 4



Dia. 5



Dia. 6

filling his outside liberties, then playing 1. In this type of fight, the player without the eye cannot win unless he has a large surplus of outside liberties.

*Dia. 3.* When the enemy has the beginnings of an eye, he must not be allowed to finish it unhindered. In this position, White must not let Black play *a*.

*Dia. 4.* He must play 1 himself. Then he can win.

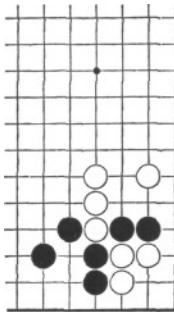
*Dia. 5.* A variation. Again White wins.

*Dia. 6.* But if he starts with a contact play, he loses.

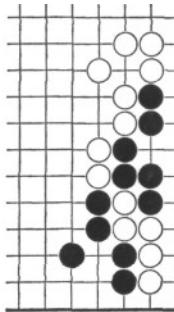
*Problem 1.* Black to play and win in the corner.

*Problem 2.* White to play and win.

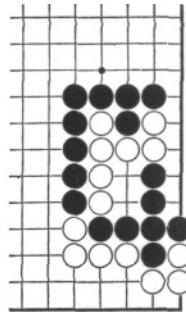
*Problem 3.* Black to play and win.



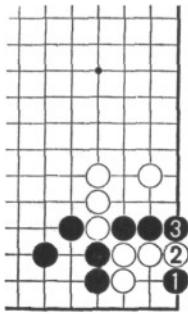
Problem 1



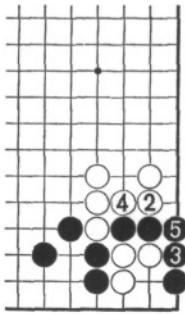
Problem 2



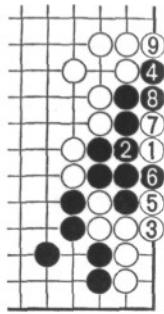
Problem 3



*Ans. to Prob. 1*



*Dia. 1a*



*Ans. to Prob. 2*

*Answer to problem 1.* Black 1 is the only move.

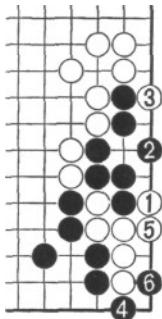
*Dia. 1a.* A variation. Black still wins.

*Answer to problem 2.* White 1 is the tesuji. After Black 2 the situation is a bit tricky, but White is ahead, and he is absolutely safe if he plays as shown.

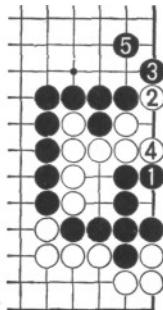
*Dia. 2a.* If White lets Black have 2, he loses. After 6 Black has an eye, White does not, and he cannot put Black into atari.

*Answer to problem 3.* Black wins unconditionally. The ko is irrelevant, since White can never put Black into atari.

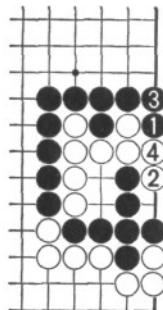
*Dia. 3a.* This is a failure—White lives in seki—and Black 1 at 4 would bring on a thousand-year ko.



*Dia. 2a*



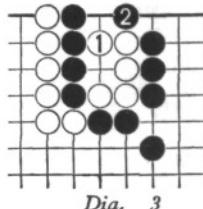
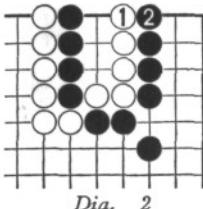
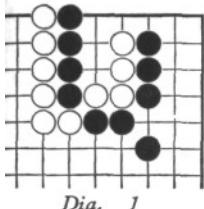
*Ans. to Prob. 3*



*Dia. 3a*

## The Diagonal Tesuji.

*Dia. 1.* How should White play in this position?



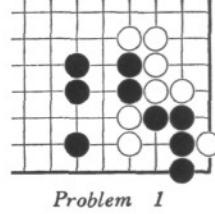
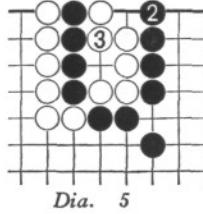
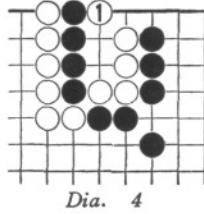
*Dia. 2.* If he goes straight up to the edge, then Black 2 causes a seki. In fact, Black does not even have to play 2; the situation will still be seki if he ignores it.

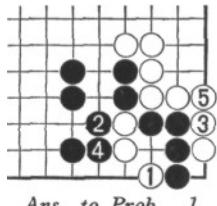
*Dia. 3.* Worse yet, if White plays 1 here, thinking that puts him ahead three liberties to two, he will be caught by Black 2 and lose outright.

*Dia. 4.* The tesuji is the diagonal move at 1. Now Black can make no contact play against White.

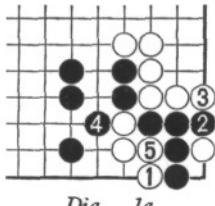
*Dia. 5.* Black has to make the approach move at 2, but White 3 gives atari and White wins.

*Problem 1.* White to play and win. Should he start by destroying the eye in the corner or by making the diagonal tesuji?

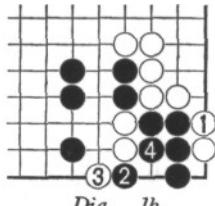




*Ans. to Prob. 1*



*Dia. 1a*



*Dia. 1b*

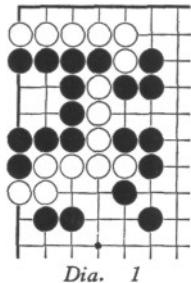
*Answer to problem 1.* White should start with the diagonal tesuji. After 5, Black has no further contact plays to make, while White is ready to put him into atari.

*Dia. 1a.* Black can make an eye with 2, but he is still a move behind.

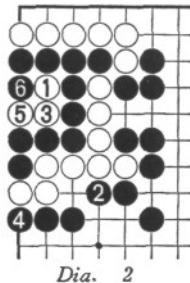
*Dia. 1b.* If White starts with 1 here, Black can get a two-step ko with 2 and 4.

## Big Eyes.

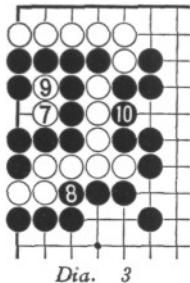
A four- or five-space eye is not necessarily a living shape, but it takes extra moves to fill one up, as the two examples below will demonstrate.



*Dia. 1*



*Dia. 2*

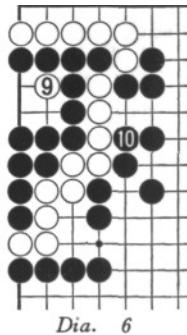
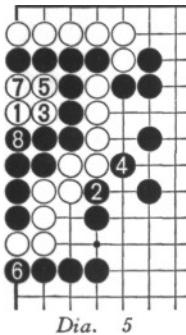
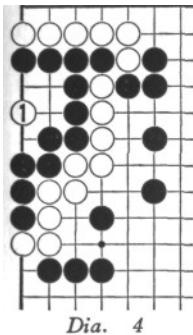


*Dia. 3*

*Dia. 1.* Each side has four liberties, so whoever starts will win this fight —right? Wrong. It takes five stones to fill a four-space eye, and White is a move behind.

*Dia.* 2. White 1 and 3 are two of the five stones. White 5 and Black 6 cancel.

*Dia.* 3. White 7 and 9 are stones number three and four, but Black has a liberty left and wins.

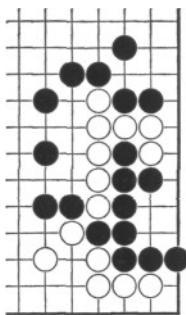


*Dia.* 4. It takes eight stones to fill a five-space eye, and once again, Black is going to win. White has seven liberties.

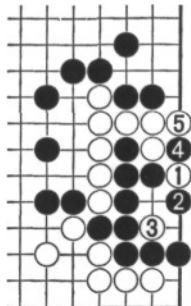
*Dia.* 5. White 1, 3, and 5 are three of the eight stones. White 7 and Black 8 cancel.

*Dia.* 6. Now the position is reduced to the previous case and White needs five more stones, including 9, to fill the eye. Black is one move ahead.

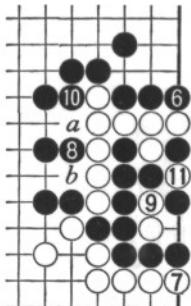
*Problem 1.* White to play. This should come to a ko.



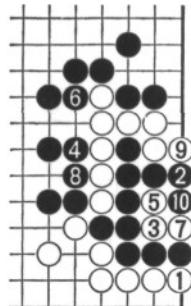
*Problem 1*



*Ans. to Prob. 1*



*Dia. 1a*



*Dia. 1b*

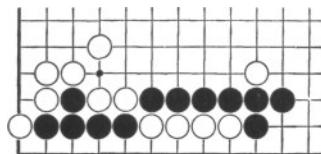
*Answer to problem 1.* White 1 is essential to keep Black from making a big eye. After 2 to 5, a ko fight looms.

*Dia. 1a.* But as the continuation shows, it is a two-step ko in White's favor. Black must ignore two ko threats, (for *a* and *b*), to win, while White need ignore only one.

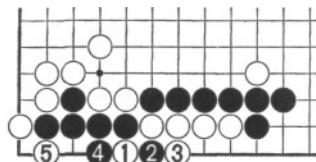
*Dia. 1b.* If White begins with, say, 1, and lets Black play 2, then how do things stand? White needs five stones to fill the eye and Black has one outside liberty—six moves in all. White also has six liberties, but he loses outright because he has to make the empty triangle at 9.

## Safety Plays.

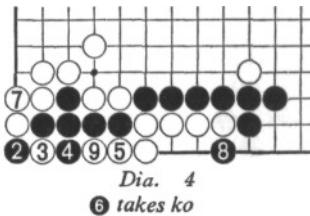
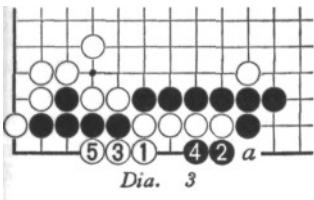
*Dia. 1.* This situation looks deceptively simple; each side has four liberties, so if White plays first he should be able to win with no trouble.



*Dia. 1*



*Dia. 2*  
⑥ takes ko



*Dia.* 2. But if White starts with the hane at 1, which looks like the logical way to trim down Black's liberties while giving his own four stones more room. Black will make a throw-in at 2. After correct plays at 3, 4, and 5, Black has managed to create a two-step ko. True, White has the advantage in the ko fight, but it is a shame that he has to fight a ko at all, since he had a sure-fire way to win.

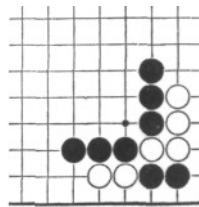
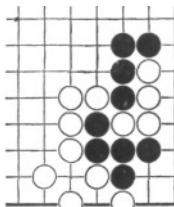
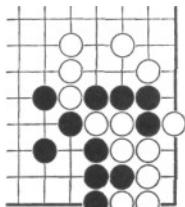
*Dia.* 3. Straight out to the edge is the correct safety play. It does not alter the number of anybody's liberties, but if Black attacks from the left, i.e. 2 at 3, he has to make an empty triangle, while if he comes in from the right, he has to make an approach play at *a*. White, therefore, is one move ahead and wins the fight.

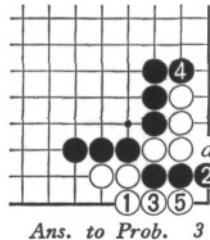
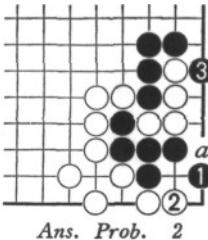
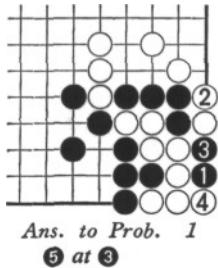
*Dia.* 4. Desperate attempts by Black to cause a ko do not succeed now.

*Problem 1.* Black to play and win for sure.

*Problem 2.* Black to play and win for sure.

*Problem 3.* White to play and win for sure.





*Answer to problem 1.* Black 1 is the safety play. If Black plays 1 at 2, then 2 at 1 makes a multi-step ko.

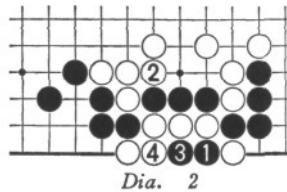
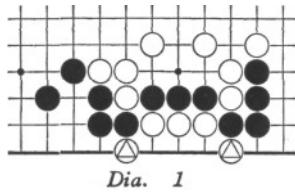
*Answer to problem 2.* This time a diagonal move is the safety play. If Black plays 1 at *a*, White 1 makes a ko.

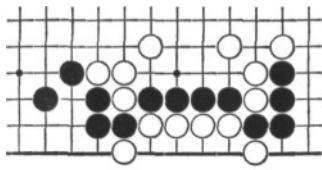
*Answer to problem 3.* White 1 is the safety play—empty triangles are not always wrong. If White played 1 at 2, Black *a* followed by Black 5 would put him in a fix.

## Two Hanes are Worth One Liberty

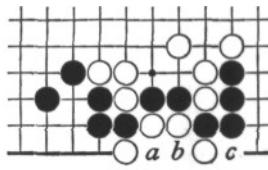
*Dia. 1.* This type of position turns up often enough to be worth knowing about. Black's three stones have three liberties. So do the white stones beneath them, but in spite of that, Black cannot win the fight. The two white hanes, marked ©, give White an extra move.

*Dia. 2.* Black begins with 1, but White just answers at 2 and Black has no continuation. If he plays 3, for instance, White captures and has three liberties. White must not play 2 at 3, or there will be a ko.





Dia. 3



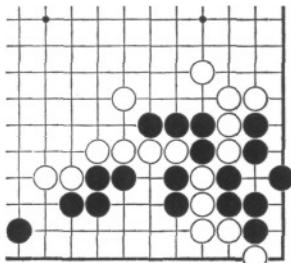
Dia. 4

*Dia. 3.* This is the same position, except that now Black and White have four liberties apiece. Once again, the two white hanes are worth an extra move, and Black cannot win even if he goes first. Try it and see for yourself.

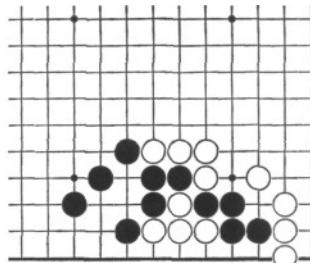
*Dia. 4.* The principle that two hanes are worth an extra move usually breaks down in the case of only two stones. Here Black plays *a*, White *b*, Black *c*, and it is all over for White. Recall, however, the third problems on pages 57 and 61.

*Problem 1.* White to play and win.

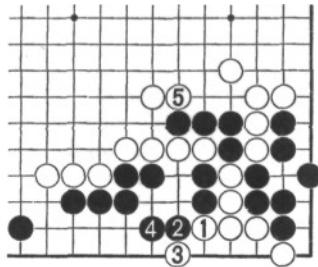
*Problem 2.* White to play and win.



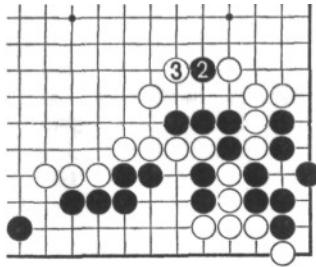
Problem 1



Problem 2



*Ans. to Prob. 1*

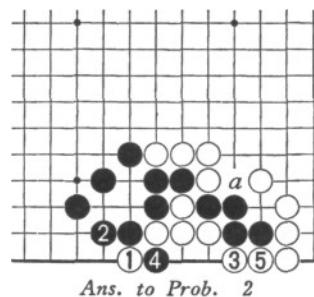


*Dia. 1a*

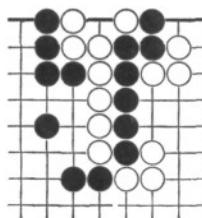
*Answer to problem 1.* White 3 threatens a double atari, and White leads by one move.

*Dia. 1a.* Black cannot escape into the center.

*Answer to problem 2.* If Black plays 4 at 5, White *a* gives atari. If White played 3 without exchanging 1 for 2, Black would answer at 4 and win.



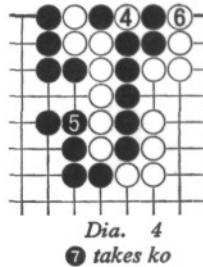
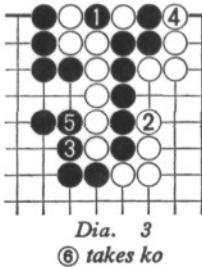
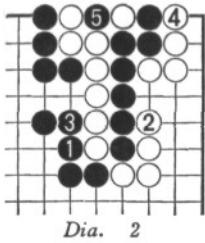
*Ans. to Prob. 2*



*Dia. 1*

## Save the Ko for Last.

*Dia. 1.* Black and White have three outside liberties apiece, and there is a ko between their two groups. Right now the ko is open on White's side, giving him one more liberty, but this works to Black's advantage, provided his turn is next.

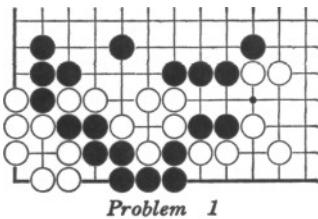


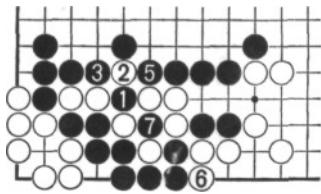
*Dia. 2.* Black begins by filling outside liberties with 1 and 3, and White has to follow suit. Only when White 4 puts him into atari does Black take the ko at 5. That puts White into atari, and he has to find the first ko threat.

*Dia. 3.* If Black took the ko with 1, White would first play 2 and 4, then retake with 6, and Black would have to find the first ko threat. In this type of fight the outside liberties are potential ko material for either player, so if you take the ko before the last possible moment, you let the enemy fill outside liberties as his ko threat against you.

*Dia. 4.* After Black's mistake in *Dia. 3*, White would be making the same mistake if he retook the ko before he was put in atari. The two mistakes would cancel, and Black would get to make the first meaningful ko capture.

*Problem 1.* Black to play.



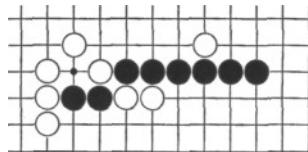


⑧ connects

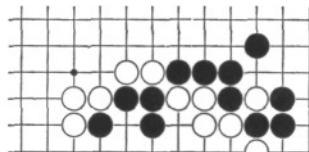
*Answer to Problem 1.* Besides saving the ko for last, Black has to make the throw-in at 1.

## More Problems.

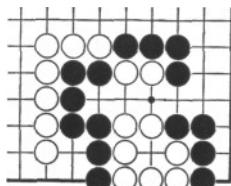
Only one of these review problems, number 3, involves ko.



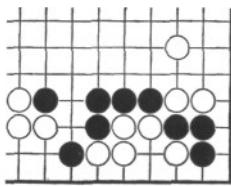
1. Black to play



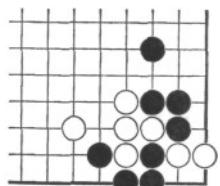
2. White to play



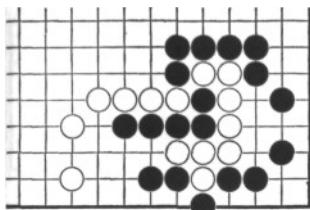
3. Black to play



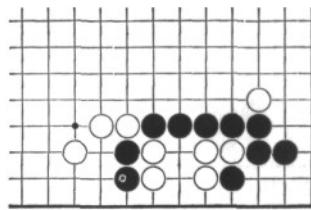
4. Black to play



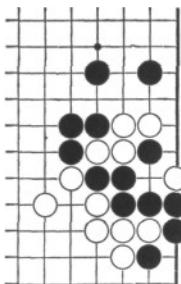
5. White to play



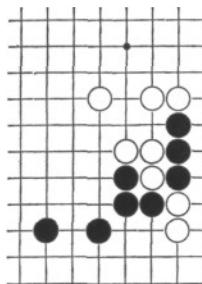
6. White to play



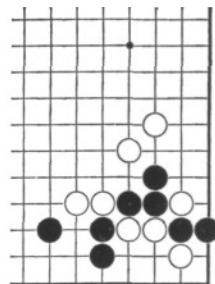
7. Black to play



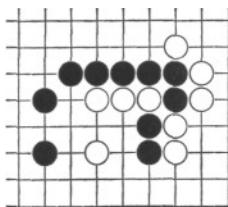
8. Black to play



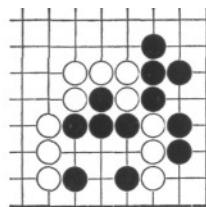
9. Black to play



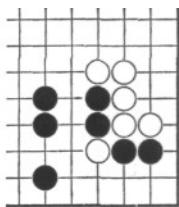
10. White to play



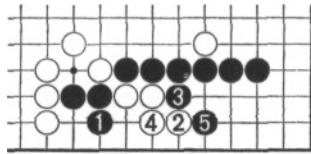
11. Black to play



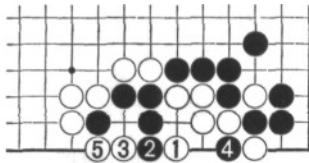
12. White to play



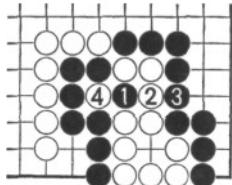
13. White to play



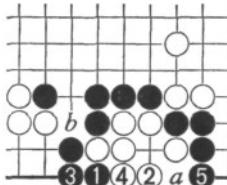
Ans. to Prob. 1



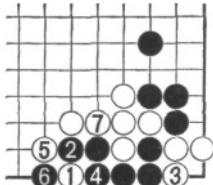
Ans. to Prob. 2  
② and ③ are miai



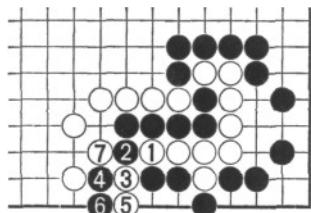
Ans. to Prob. 3



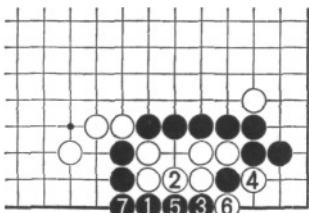
Ans. to Prob. 4  
If ① at a, ② at b.



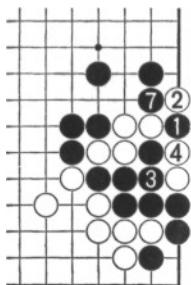
Ans. to Prob. 5



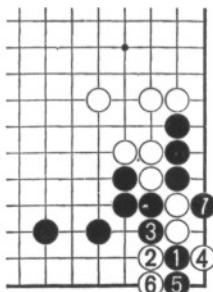
Ans. to Prob. 6



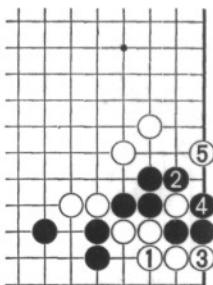
Ans. to Prob. 7



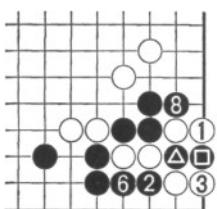
Ans. to Prob. 8  
⑤ at ①, ⑥ at ④.



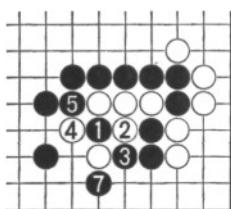
Ans. to Prob. 9



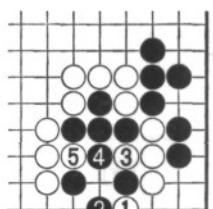
Ans. to Prob. 10



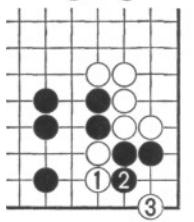
Failure  
④ at Δ, ⑤ at □,  
⑦ at Δ.



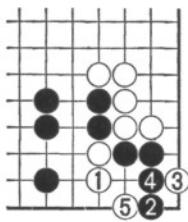
Ans. to Prob. 11  
⑥ connects



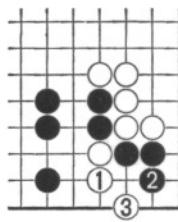
Ans. to Prob. 12



Ans. to Prob. 13



Variation



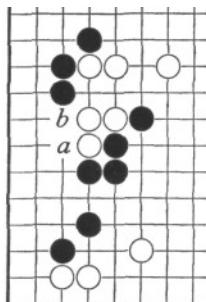
Variation

## **6. LINKING GROUPS TOGETHER**

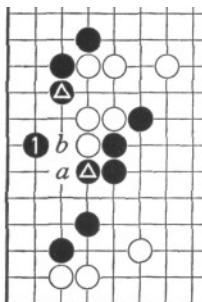
This chapter covers the main tesuji for Jinking friendly groups together.

## The Knight's-Move Tesuji.

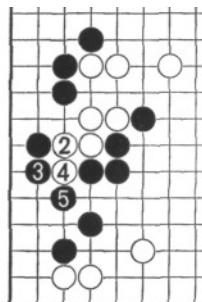
*Dia. 1.* Black has a large gap to try to bridge on the left side. Beginners tend to play *a* in this position, but then White comes through at *b* and Black cannot link up.



Diag. 1



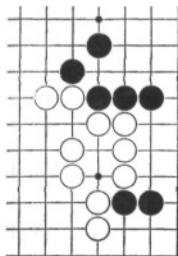
Diag. 2



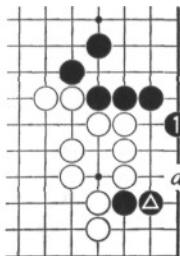
Diag. 3

*Dia. 2.* Black 1 is the right play. It is a knight's move away from each of the two stones marked  $\Rightarrow$ , and forms a link between them that White cannot destroy. If White plays  $a$ , for example, Black cuts with  $b$  and White  $a$  is dead.

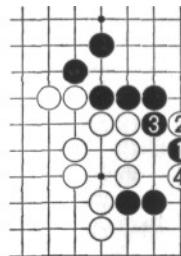
*Dia. 3.* White can reduce Black's side territory slightly with 2, but Black stays firmly linked together. White 2 and 4 should, of course, be saved for the endgame.



Dia. 4



Dia. 5



Dia. 6

*Dia. 4.* At the very edge of the board, a longer knight's move is possible. In this diagram Black needs to link up to save his two corner stones.

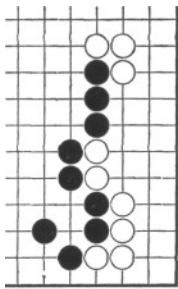
*Dia. 5.* Black 1, a large knight's move away from Black ⇒, is the tesuji. Black *a* would work just as well. You should be able to verify that Black's linkage is secure, but you may already know this move, since it occurs as an endgame tesuji called the monkey jump.

*Dia. 6.* Surprisingly, the play at the center of symmetry fails in this case.

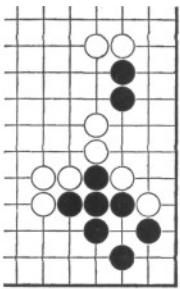
*Problem 1.* White to play and link up.

*Problem 2.* Black to play. Don't let the white stones cloud your perception.

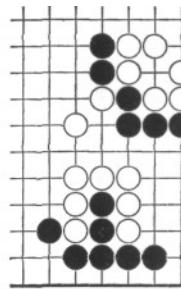
*Problem 3.* Black to play and link up.



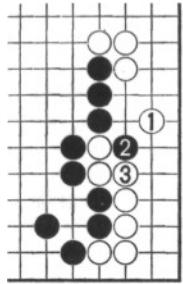
Problem 1



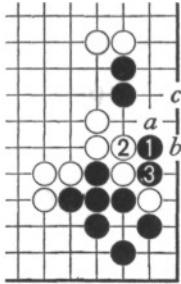
Problem 2



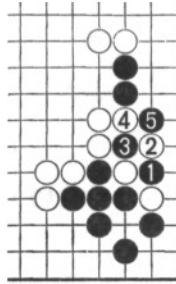
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



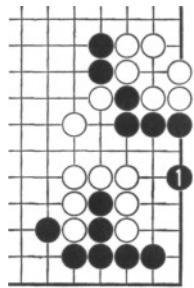
*Dia. 2a  
⑥ takes ko*

*Answer to problem 1.* The tesuji is the knight's move at 1. Black has an atari at 2, but it does not help him.

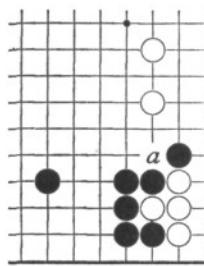
*Answer to problem 2.* Black 1 is the same knight's-move tesuji; it makes 2 and 3 miai. There seems to be danger of a ko from White *a-b-c*, but Black has too many liberties for the ko to work.

*Dia. 2a.* If Black played this way, however, there would be a ko.

*Answer to problem 3.* This is the large knight's-move tesuji.



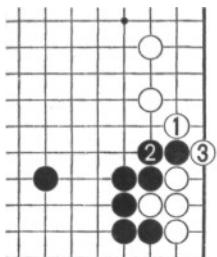
*Ans. to Prob. 3*



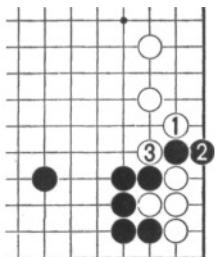
*Dia. 1*

## The Clamping Tesuji.

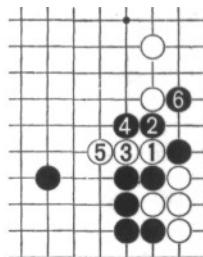
*Dia. 1.* White is in no position to cut at *a*, so he had better lower his sights and satisfy himself with linking his eyeless corner stones to the outside.



Dia. 2



Dia. 3



Dia. 4

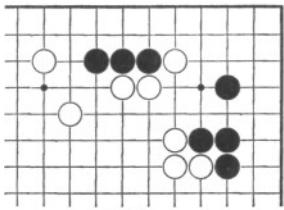
*Dia. 2.* The move that does this for him is our old friend, the clamping tesuji. Black should connect at 2, letting White link underneath at 3.

*Dia. 3.* If Black tries to resist, he only loses two stones. Black 2 and White 3 are miai.

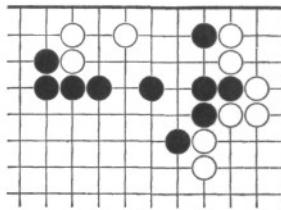
*Dia. 4.* Just for reference, this is the trouble that is in store for White if he cuts.

*Problem 1.* Black to play and link up.

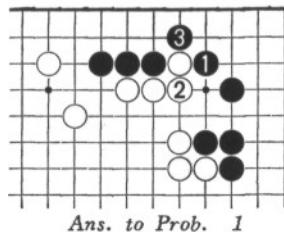
*Problem 2.* White to play and link up.



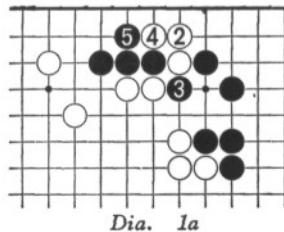
Problem 1



Problem 2



*Ans. to Prob. 1*

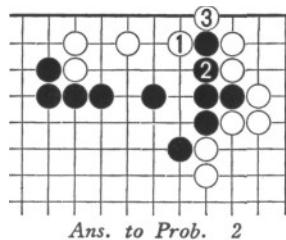


*Dia. 1a*

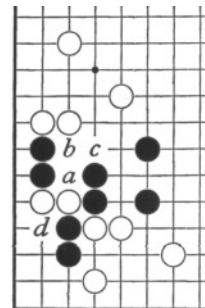
*Answer to problem 1.* Black clamps the enemy stone with 1, and White has no choice but to connect at 2.

*Dia. 1a.* If he tries to resist, Black cuts him off with 3. This possibility needs to be thought out, but after 4 and 5 White is behind, four liberties to three, and cannot win.

*Answer to problem 2.* Again, the clamping tesuji does the job. White 1 at 2 would not.



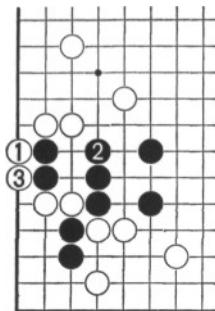
*Ans. to Prob. 2*



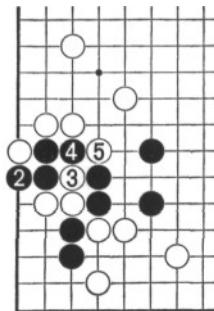
*Dia. 1*

## Using Shortage of Liberties.

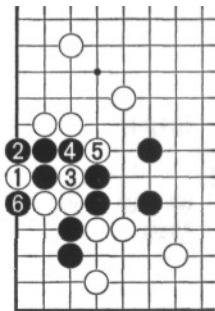
*Dia. 1.* If White could rescue his two stones on the left side, he would win the black ones in the corner, too, but this is not so easy. If he tries to push through at *a*, then Black *b*, White *c*, Black *d*, and White is in atari. Fortunately Black, as well as White, is faced with shortage of liberties here, so if White plays a move that threatens to link up while reducing Black's liberties further ...



Dia. 2



Dia. 3



Dia. 4

*Dia. 2.* A hane is the tesuji here. Black is forced to let White link up.

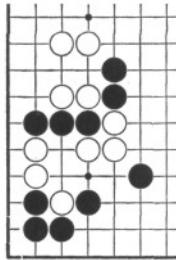
*Dia. 3.* If he tries to block at 2, White will push through and cut with 3. Black has one less liberty than before, and White 5 puts him in atari.

*Dia. 4.* White has to be careful not to play the wrong hane. If he starts from this side then Black can block at 2, since 6 puts White in atari.

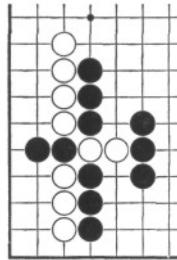
*Problem 1.* Black to play and link up.

*Problem 2.* White to play and link up. The tesuji is a direct application of shortage of liberties, but it is stranger than a hane.

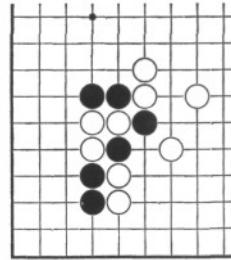
*Problem 3.* Black to play and link up. He must start with a hane, but which one?



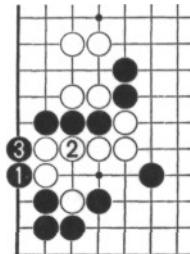
Problem 1



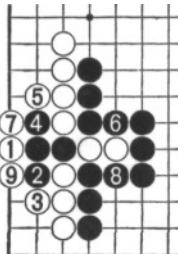
Problem 2



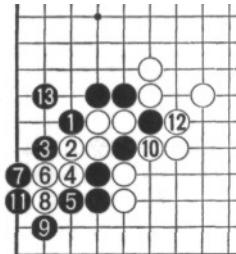
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



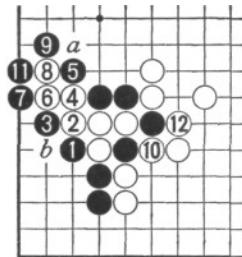
*Ans. to Prob. 3*

*Answer to problem 1.* Black 1 is the correct bane. Rescuing the cutting stones is very big for Black.

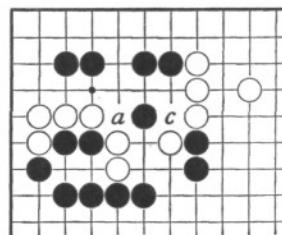
*Answer to problem 2.* White 1, a nose tesuji, is the key point. If White started with, say, 2, Black would play 1 and White's chance would be lost.

*Answer to problem 3.* Black may not make much territory out of this, but at least he succeeds in linking two weak groups together.

*Dia. 3a.* Black can start the same kind of sequence from the other side, but at the end White is threatening *a*, *b*, etc., and Black has failed.



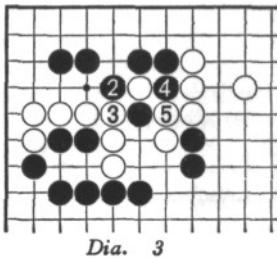
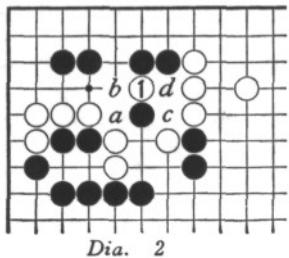
*Dia. 3a*



*Dia. 1*

## Sacrifice Tesuji.

Sometimes a sacrifice is necessary to make the linkage go smoothly.



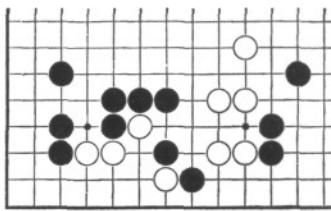
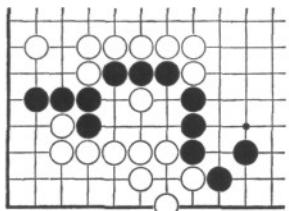
*Dia. 1.* If White connects at *a*, Black will cut at *c*, and if White connects at *c*, Black will cut at *a*, so it seems as if White must resign himself to losing at least four stones. Fortunately there is a way out of this dilemma.

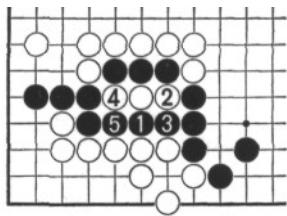
*Dia. 2.* White 1 at the center of symmetry deals with both threatened cuts. Now if Black plays *a*, White can answer at *b*, and if Black plays *c*, White can answer at *d*.

*Dia. 3.* Black does best to capture with 2 and 4—this strengthens his corner group—but while he is busy taking the sacrifice stone, White connects at 3 and 5 and links up.

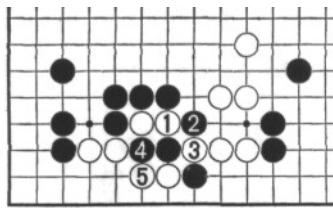
*Problem 1.* Black to play and link up. Which stones will become the ones sacrificed?

*Problem 2.* White to play and link his two corner stones to the outside.





*Ans. to Prob. 1*



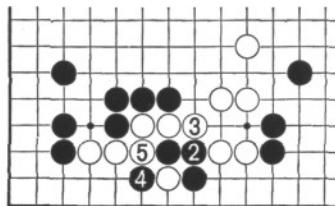
*Ans. to Prob. 2*

*Answer to problem 1.* White picks up three stones while Black connects.

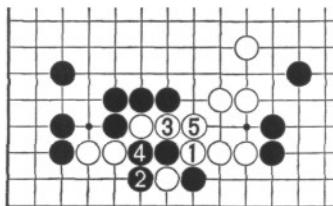
*Answer to problem 2.* White 1 is the sacrifice tesuji; this time the price of linking up is two stones. Black can interchange 2 and 4, in which case White will interchange 3 and 5.

*Dia. 2a.* Black 2 and 4 here are not so good, for now White links up in sente. Black must make another move or face death on the lower side. As before, if Black interchanges 2 and 4, White will interchange 3 and 5.

*Dia. 2b.* This White 1 is a failure. By refusing to sacrifice, White loses the corner.



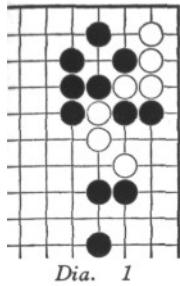
*Dia. 2a*



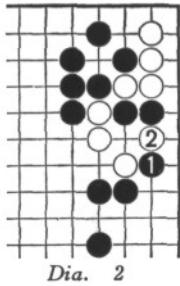
*Dia. 2b*

## The Diagonal Tesuji.

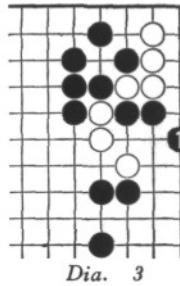
*Dia. 1.* If Black could link up on the right side, he would not only save his own stones but kill the corner as well.



Dia. 1



Dia. 2



Dia. 3

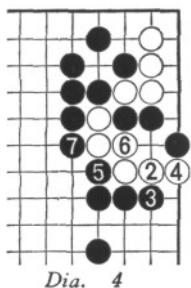
*Dia. 2.* The obvious-looking Black 1 quickly fails as White wedges in at 2.

*Dia. 3.* This position calls for the diagonal tesuji. It may be hard to believe that Black 1 links anything to anything, and in fact it would not work if White were not suffering from shortage of liberties, but he is and it does.

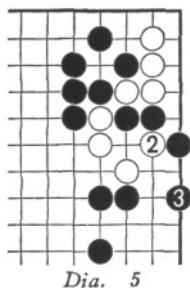
*Dia. 4.* If White tries to be stubborn with 2, 4, and 6, he loses all his stones. Now the reason why the diagonal tesuji works should be becoming clearer.

*Dia. 5.* Against this White 2, Black links up by skipping down the side to 3.

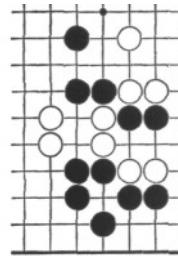
*Problem 1.* Black to play and link up on the right side.



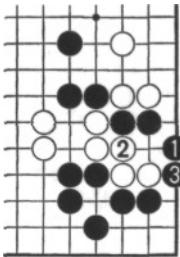
Dia. 4



Dia. 5



Problem 1

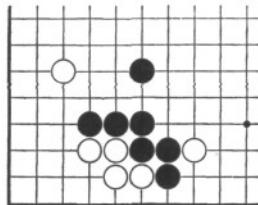


*Ans. to Prob. 1*

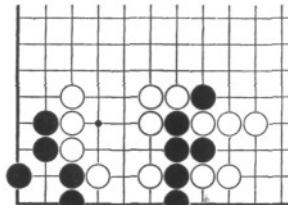
*Answer to problem 1.* After 2 and 3 Black is linked up and White is split apart. If White played 2 at 3, Black would cut at 2 and capture three stones.

## More Problems.

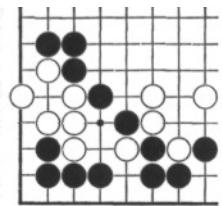
The following problems involve variations and combinations of the tesuji in this chapter. The object in each is to link up. In problem 5 be sure not to lose the three cutting stones in the corner.



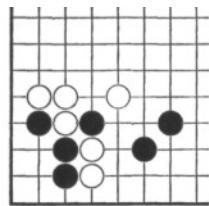
1. *White to play*



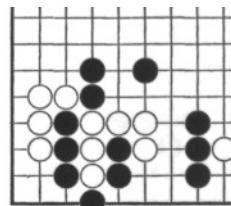
2. *Black to play*



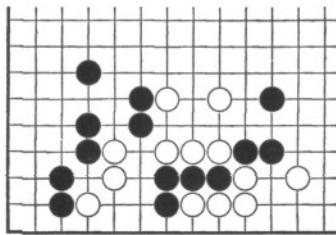
3. White to Play



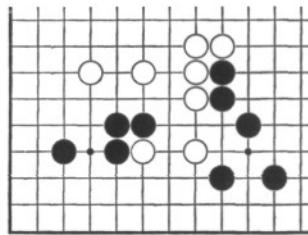
4. Black to play



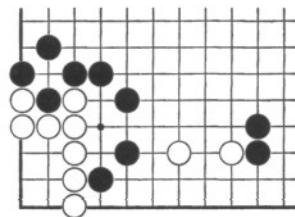
5. Black to play



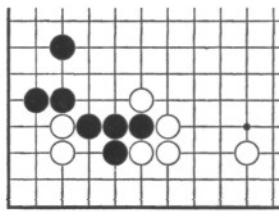
6. Black to play



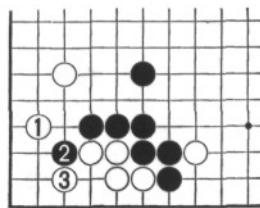
7. Black to play



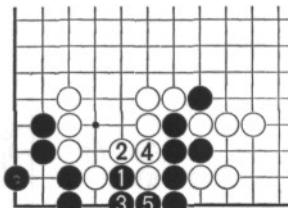
8. White to play



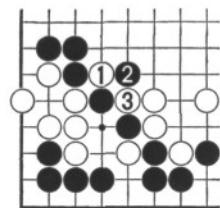
9. White to play



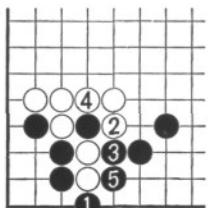
Ans. to Prob. 1



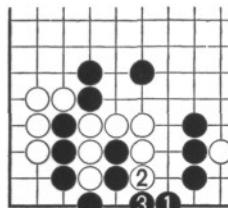
Ans. to Prob. 2



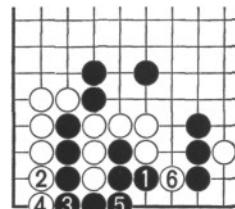
Ans. to Prob. 3



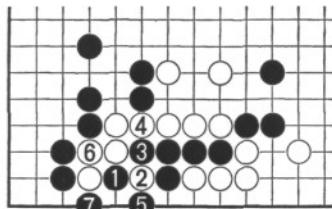
Ans. to Prob. 4



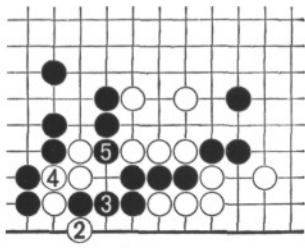
Ans. to Prob. 5



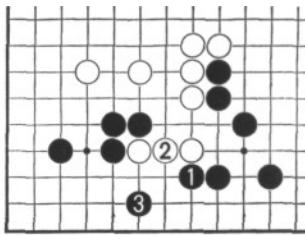
Failure



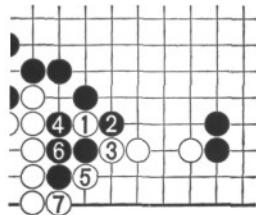
Ans. to Prob. 6



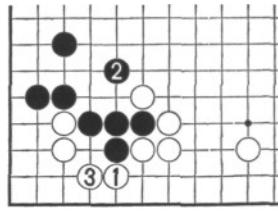
Variation



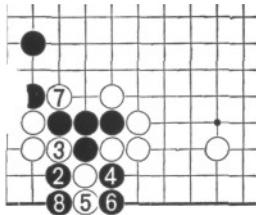
Ans. to Prob. 7



Ans. to Prob. 8

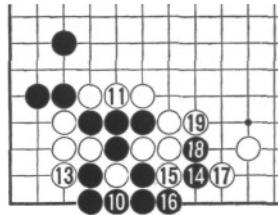


Ans. to Prob. 9



Variation

⑨: throw-in



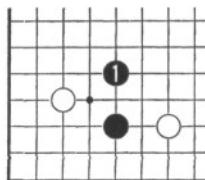
Continuation

⑫ connects

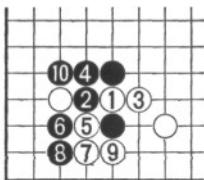
## 7. CUTTING GROUPS APART

# Cuttable and Uncuttable Shapes

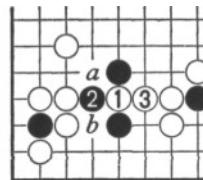
This section looks at some common shapes of stones to see which are safe from being cut through and which are not.



Dia. 1



*Dia.* 2



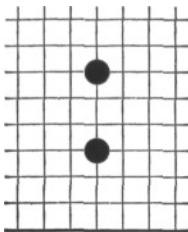
*Dia.* 3

*Dia. 1.* The one-point jump, of which Black 1 is an example, is the most often-made extension in the game. In general the enemy can cut it, just by wedging into the space between the two stones, but it is not profitable for him to do so. That is true in this diagram.

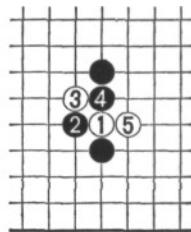
*Dia. 2.* If White wedges in at 1 and cuts at 5, he can indeed separate Black's original two stones and capture the lower one of them. Black is happy to give it up, however, for the end result favors him heavily. Black could also play 2 at 3 and do equally well.

Since it is usually disadvantageous to try to cut a one-point jump, it is easy to fall into the habit of thinking of all one-point jumps as imcuttable, but that is a mistake.

*Dia. 3.* If the surrounding white positions became strengthened like this, for example, White 1 would become effective. After the moves shown, if Black connects at *a* White will cut at *b*, and vice versa, and the same situation would arise if Black played 2 at 3. White has captured the lower side.



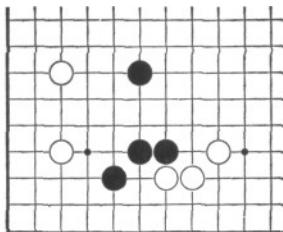
Dia. 4



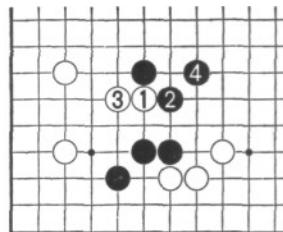
Dia. 5

*Dia. 4.* While a one-point jump is basically a strong extension, a two-point jump is basically frail, and provides an open invitation to the opponent to cut.

*Dia. 5.* White 1 and 3 are the most aggressive cutting combination, with 3 at 4 and 3 at 5 being other possibilities. Of course when to cut, if at all, and how to cut are questions to be answered by considering the surrounding positions.



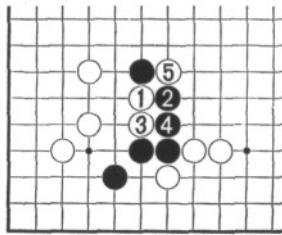
Dia. 6



Dia. 7

*Dia. 6.* A two-point jump from a two-stone wall is much stronger. In this diagram Black's shape is uncuttable.

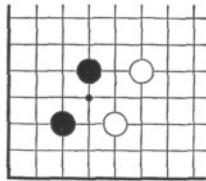
*Dia. 7.* This shows one unsuccessful attempt to cut.



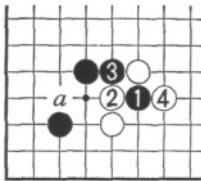
Dia. 8

*Dia. 8.* But as usual, if the surrounding white positions were just a little stronger, Black would be in danger.

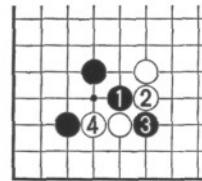
*Dia. 9.* Whether a knight's move can be cut or not depends on a ladder. Here both Black's and White's knight's moves are close enough to the edge that the ladders work, and they are safe from being cut.



Dia. 9



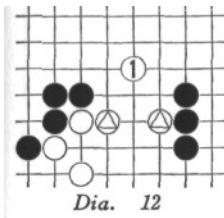
Dia. 10



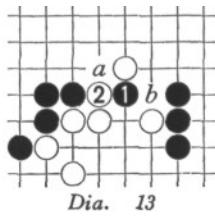
Dia. 11

*Dia. 10.* If Black plays 1 and 3, for example, White can capture him in a ladder with 4. The same thing would happen if White tried to cut at *a*.

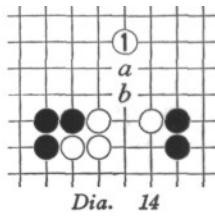
*Dia. 11.* To push through with a diagonal move and try to cut is usually bad. In this case, for instance, White 4 threatens both to capture Black 3 and to take apart the corner.



Dia. 12



Dia. 13



Dia. 14

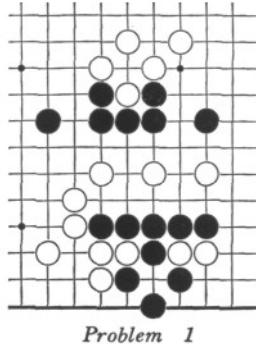
*Dia. 12.* A dog's-neck extension like White 1, (a knight's move away from both of the stones marked  $\Downarrow$ ), is safe regardless of ladders or other surrounding circumstances.

*Dia. 13.* Black 1 fails; White 2 makes *a* and *b* miai. As we shall see, however, sometimes a move like 1 can be put to good use as a sacrifice.

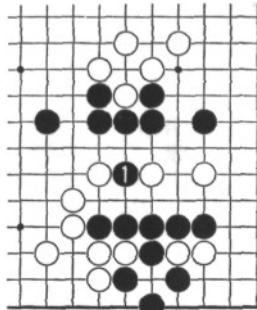
*Dia. 14.* A horse's-neck extension like this White 1 may or may not be safe. The danger point is *a*, or sometimes *b*, but as always, the value of cutting, as well as the possibility of doing so, depends on the surrounding positions.

In Dia. 12 observe that White could not have extended any farther than he did.

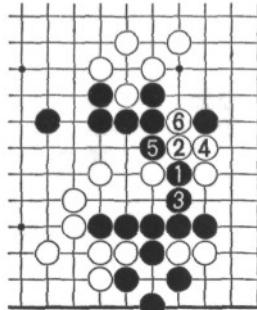
*Problem 1.* Black to play. Where should he cut through White's line of one-point jumps?



Problem 1



*Ans. to Prob. 1*



*Dia. 1a*

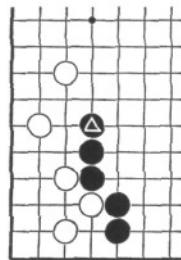
*Answer to problem 1.* Black is well fortified both above and below 1, and the whole side is his.

*Dia. 1a.* This Black 1 is wrong; after being cut, White can live on the right side by pushing through at 6.

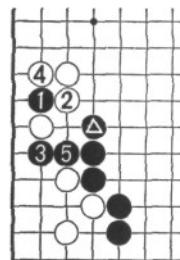
## Cutting Through the Knight's Move.

*Dia. 1.* White seems to be linked together with two knight's moves on the left side, but there is a defect in this shape. Black has a cutting tesuji, in which the stone marked  $\Rightarrow$  plays an important role.

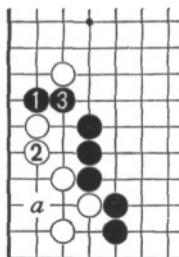
*Dia. 2.* Black offers 1 as a sacrifice, and if it is accepted, he can capture the corner with 3 and 5. Notice that if Black  $\Rightarrow$  were not there, White could play 4 at 5.



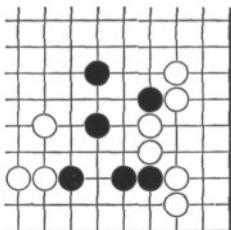
*Dia. 1*



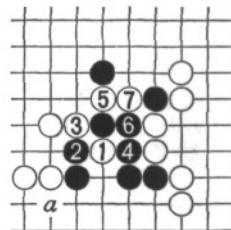
*Dia. 2*



Dia. 3



Dia. 4



Dia. 5

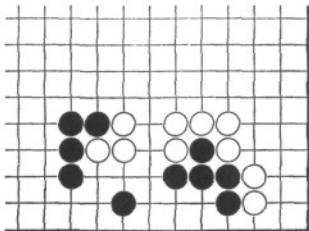
*Dia. 3.* White should spurn the sacrifice and play 2, but his corner is sealed in and there remains the possibility of a multi-step ko, starting with Black *a*.

*Dia. 4.* The same kind of tesuji occurs in this position. Black has come out into the center with a dog's-neck extension followed by a one-point jump, but by sacrificing a stone in the former, White can cut through the latter.

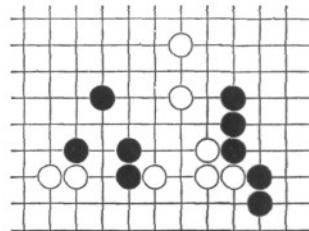
*Dia. 5.* This is the combination. Black may be able to live in ko with *a*, but even if he does, White has scored a success by walling him in.

*Problem 1.* White to play. Where should he start his splitting operation?

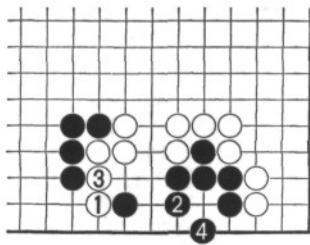
*Problem 2.* Black to play and sever White's line.



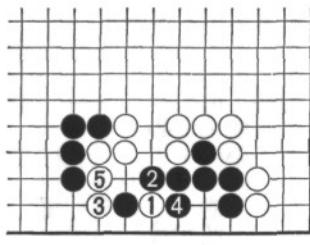
Problem 1



Problem 2



*Ans. to Prob. 1*

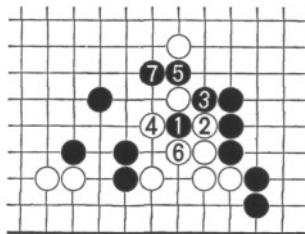


*Dia. 1a*

*Answer to problem 1.* White 1 is correct, and it takes skillful play on Black's part to live.

*Dia. 1a.* To start on the wrong side is to lose a move. White 1 helps Black to live, and White ends in gote.

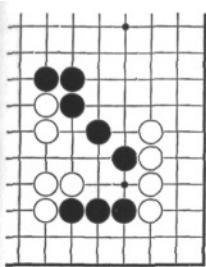
*Answer to problem 2.* Black 1 is the tesuji. Black cuts through White's line with 3 to 7, linking his own groups loosely together, and White still needs to make a move to live on the lower side.



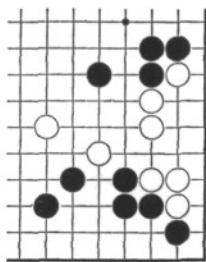
*Ans. to Prob. 2*

## More Problems.

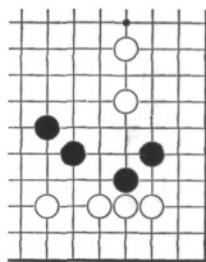
A few more miscellaneous splitting tesuji appear in these problems. In all of them, the enemy has a line of stones to be cut through. In some cases what is cut off will be dead, while in others it may be able to struggle and live. In problem 6 a two-step tesuji combination is necessary to cut effectively.



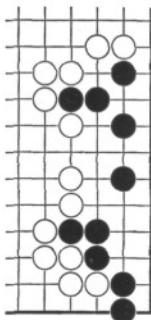
1. White to play



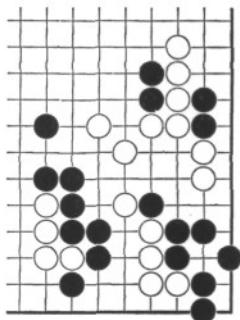
2. Black to play



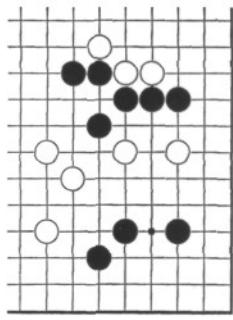
3. White to play



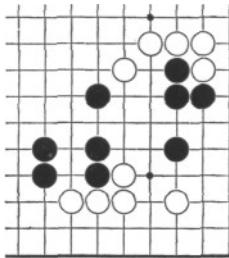
4. White to play



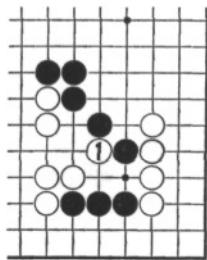
5. Black to play



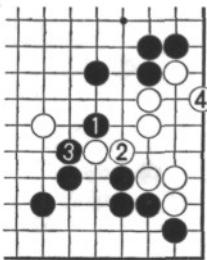
6. Black to play



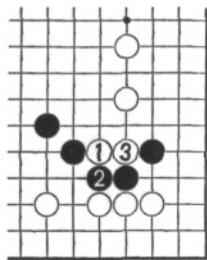
7. White to play



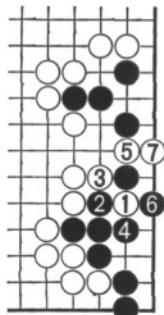
Ans. to Prob. 1



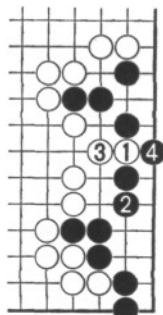
Ans. to Prob. 2



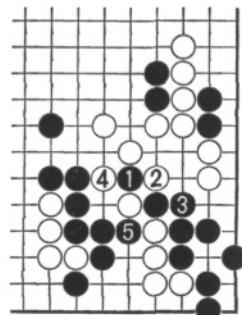
Ans. to Prob. 3



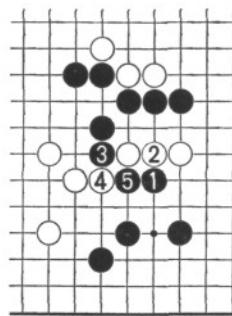
Ans. to Prob. 4



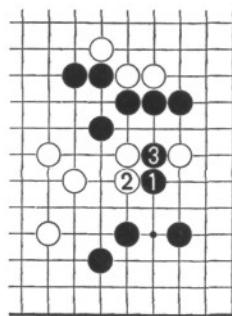
Failure



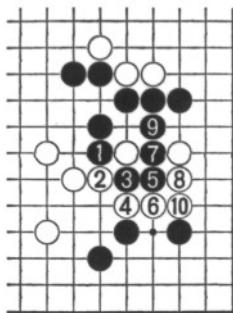
Ans. to Prob. 5



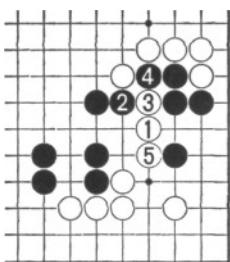
Ans. to Prob. 6



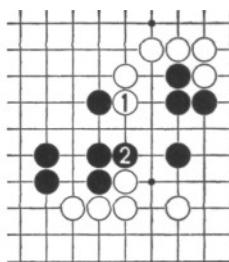
Variation



*Failure*



*Ans. to Prob. 7*



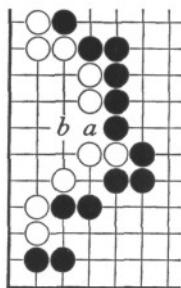
*Failure*

## 8. INTO ENEMY TERRITORY

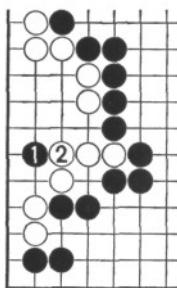
This chapter examines some tesuji for breaking into enemy territory or, what amounts to the same thing, for activating stones that seem to have died within enemy territory.

### The Wedge Tesuji.

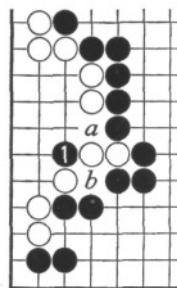
*Dia. 1.* There is a suspicious look to this medium-sized piece of white territory; it is just loose enough around the edges to make one want to hunt for a way into it. The uninspired Black *a*, White *b*, however, leads nowhere.



*Dia. 1*



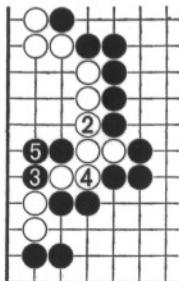
*Dia. 2*



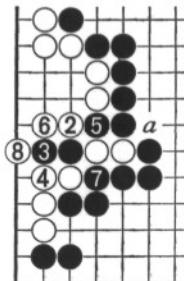
*Dia. 3*

*Dia. 2.* The next obvious move to try is the placement beside White's cutting point—how about it? White could get into trouble if he answered incorrectly, but if he plays 2, Black cannot do anything. This failure, however, points the way to the correct tesuji.

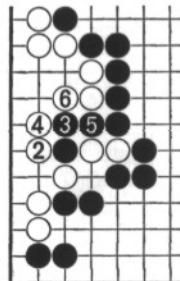
*Dia. 3.* Since White 2 in Dia. 2 was the key point for defense, what happens when Black wedges in there himself? Black 1 threatens



Dia. 4



Dia. 5



Dia. 6

to capture two stones with *a*. Against Black *a*, White could not connect at *b* because of shortage of liberties.

*Dia. 4.* If White connects at 2 to keep Black from coming through there, Black 3 and 5 capture the corner.

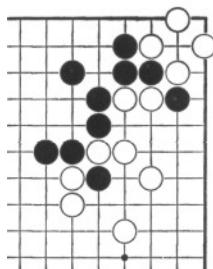
*Dia. 5.* Perhaps White's best response is to give atari at 2, then connect at 4. Black 5 is necessary, and 6 and 7 become miai. White saves his corner, while Black captures two stones in sente and eliminates the possible cut at *a*.

*Dia. 6.* This is another variation with a similar result.

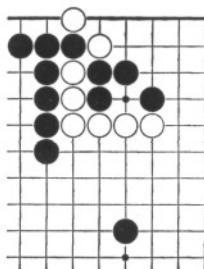
*Problem 1.* Black to play on the right side.

*Problem 2.* White to play in the corner.

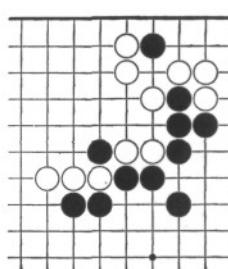
*Problem 3.* Black to play. There seem to be two dead stones inside White's territory, but the right tesuji will bring them to life.



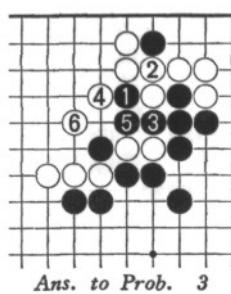
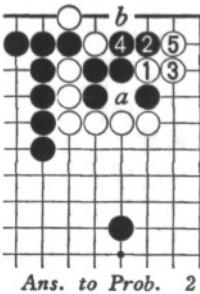
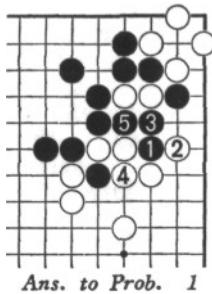
Problem 1



Problem 2



Problem 3



*Answer to problem 1.* White 4 and Black 5 are rniai.

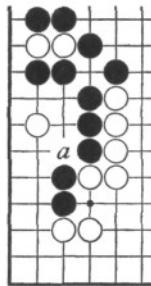
*Answer to problem 2,* White 1 threatens White 4, and Black is quickly forced to connect. After 5, White *a* will be sente, threatening *b* and a ko.

*Answer to problem 3.* After Black 1 White cannot connect at 3, and he has to give up something.

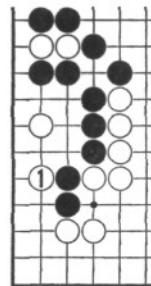
## The Belly Tesuji

*Dia. 1.* White's stone looks lost in the center of Black's territory, but there is hope for it because of the cutting point at *a*. White cannot, however, cut at *a* directly, as you can easily verify.

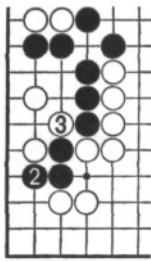
*Dia. 2.* What White can do is to play 1 at the belly of the two black stones, threatening both to cut and to connect to the outside.



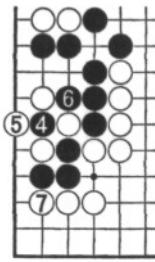
*Dia. 1*



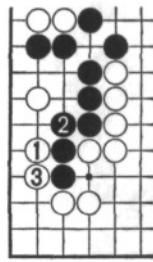
*Dia. 2*



Dia. 3



Dia. 4



Dia. 5

*Dia. 3.* If Black blocks at 2, White cuts at 3 and a fight looms ahead. White seems to be leading, four liberties to three.

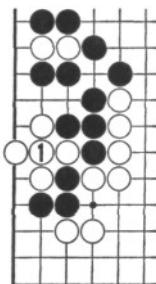
*Dia. 4.* So Black resorts to a throw-in and forces a ko, (see problem 1), but he is risking more this way than is White.

*Dia. 5.* If Black cannot fight the ko, he had better play 2 here and let White link up.

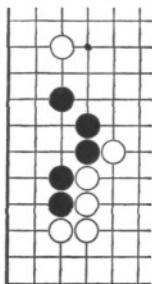
*Problem 1.* Black to play. Suppose White connects at 1, instead of playing 7 in Dia. 4—what happens?

*Problem 2.* White to play. Bearing the belly tesuji in mind, find his best invasion point.

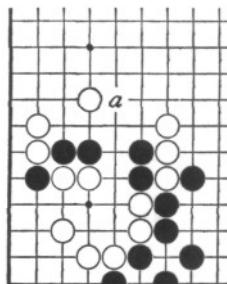
*Problem 3.* Black to play. He could run out at «, but he has something else to try first.



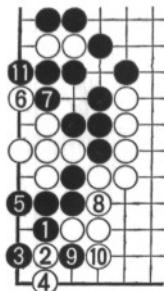
Problem 1



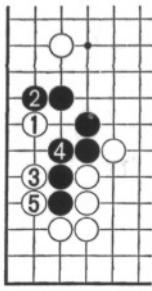
Problem 2



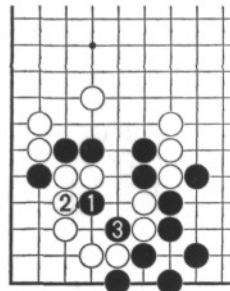
Problem 3



*Ans. to Prob. 1*



*Ans. to Prob. 2*



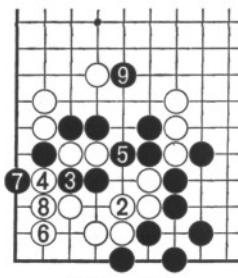
*Ans. to Prob. 3*

*Answer to problem 1.* Black 1, 3, and 5 are correct. White is forced to fight a multi-step ko.

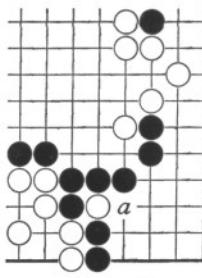
*Answer to problem 2.* White 1 is correct. If Black blocks at 2, White has the belly tesuji, and Black's eye space is being seriously threatened.

*Answer to problem 3.* Black 1 makes 2 and 3 miai, and Black captures two cutting stones.

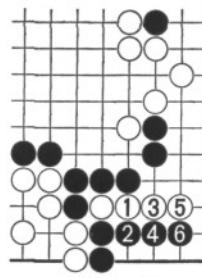
*Dia. 3a.* Serious complications await White if he tries to keep Black cut off. He can live in the corner with 4 to 8, but then he faces trouble on the outside.



*Dia. 3a*



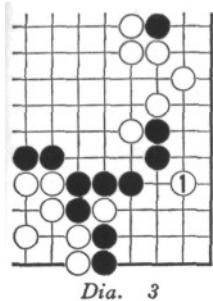
*Dia. 1*



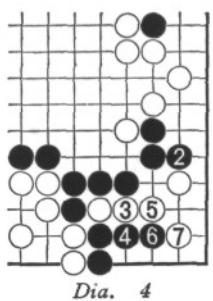
*Dia. 2*

## The Placement Tesuji.

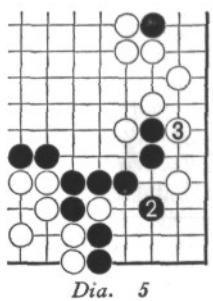
*Dia. 1.* This time Black's corner territory is the target. It looks vulnerable since White has the possibility of coming out at *a* to work with.



Dia. 3



Dia. 4



Dia. 5

*Dia. 2.* White cannot come out right away, or Black will chase him from underneath and capture him. White 1, 3, and 5 become meaningless sacrifices.

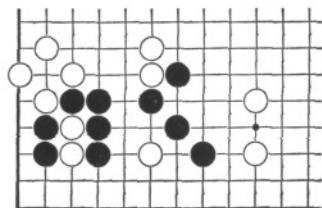
*Dia. 3.* But White has a placement tesuji at 1. It operates as a double-threat move.

*Dia. 4.* If Black blocks at 2, then White can come out at 3. Of course Black should not blunder ahead as shown—he should play 4 at 5 and lose only two stones—but even that way his loss is big.

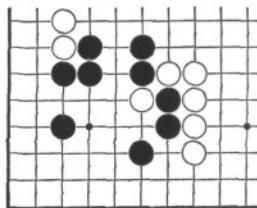
*Dia. 5.* If Black defends against Dia. 4, White can link up with 3.

*Problem 1.* White to play. He has a tesuji that threatens both to release the two stones in the corner and to link up to the right.

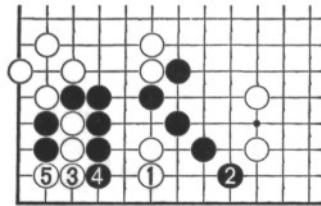
*Problem 2.* White to play. By putting his dead stone to work he can greatly reduce Black's corner.



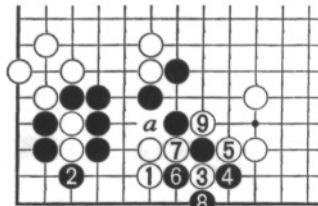
Problem 1



Problem 2



*Ans. to Prob. 1*



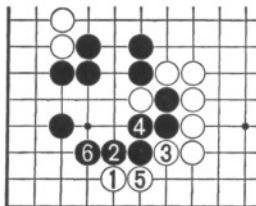
*Dia. 1a*

*Answer to problem 1.* If Black blocks the way to the right, White comes out to 3, and as you have no doubt already verified, Black cannot play 4 at 5.

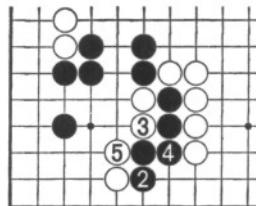
*Dia. 1a.* If Black protects the corner with 2, White can link up to the right with 3. The linkage is not quite perfect, as Black 4 to 8 show, but Black himself takes a risk in starting this ko fight. If he loses it, White's position is greatly strengthened and *a* has become an atari.

*Answer to problem 2.* White 1 finds the right spot, and Black has to give in with 2.

*Dia. 2a* If he tries to block, he loses everything.



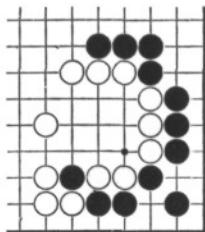
*Ans. to Prob. 2*



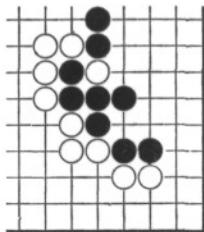
*Dia. 2a*

## More Problems.

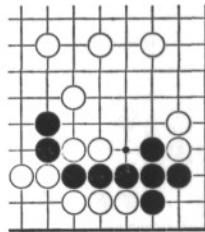
In these problems you will find not only wedge and placement tesuji, but squeeze, nose, diagonal, clamp, cross-cut, and throw-in tesuji.



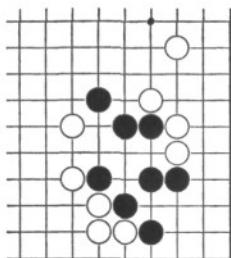
1. *Black to play*



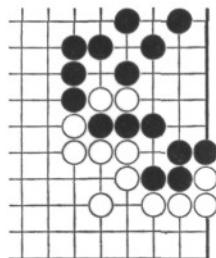
2. *White to play*



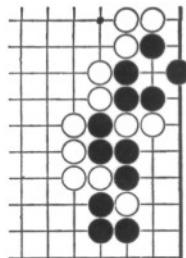
3. *Black to play*



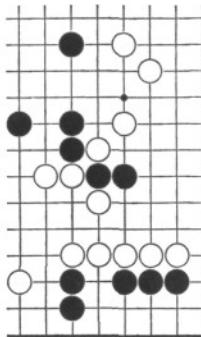
4. *White to play*



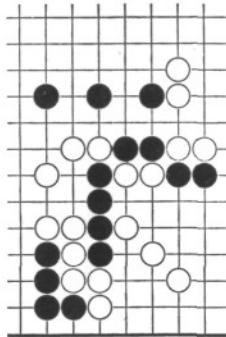
5. *White to play*



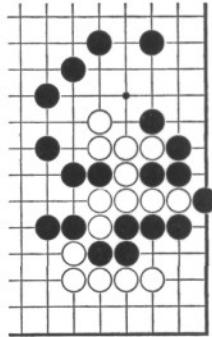
6. *White to play*



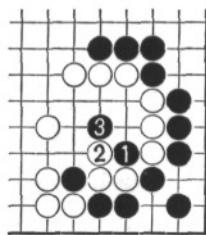
7. *Black to play*



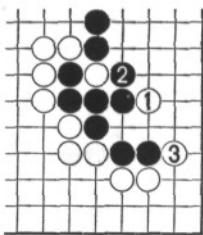
8. *Black to play*



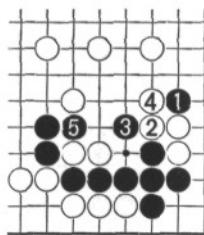
9. *White to play*



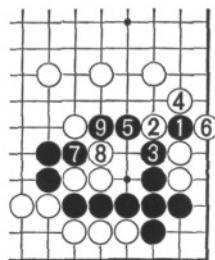
Ans. to Prob. 1



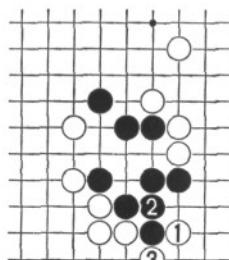
Ans. to Prob. 2



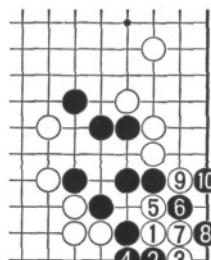
Ans. to Prob. 3



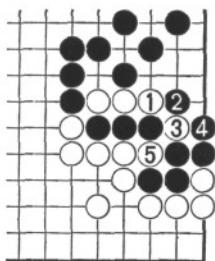
Variation



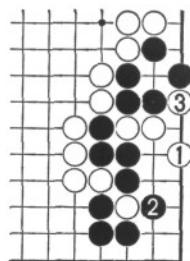
Ans. to Prob. 4



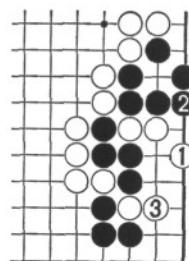
Variation



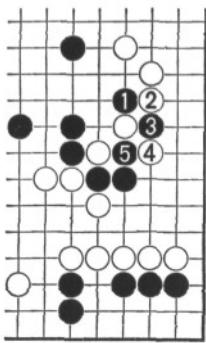
Ans. to Prob. 5



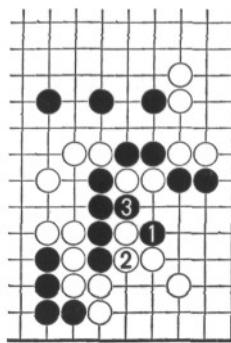
Ans. to Prob. 6



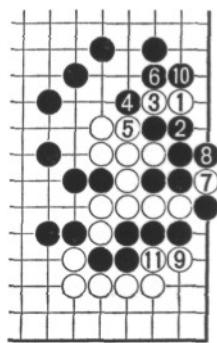
Variation



*Ans. to Prob. 7*



*Ans. to Prob. 8*



*Ans. to Prob. 9*

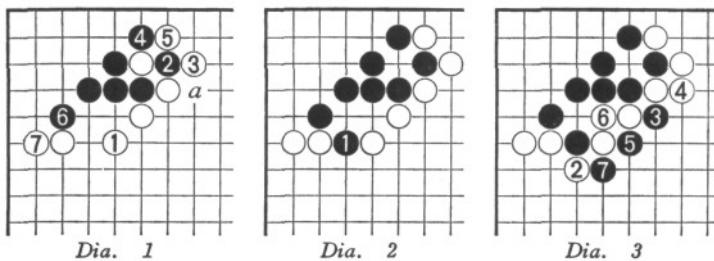
## 9. ESCAPE

This short chapter covers some techniques for breaking out into the open. The most common tesuji are contact plays such as cuts and wedges, and the second most common are one-point jumps.

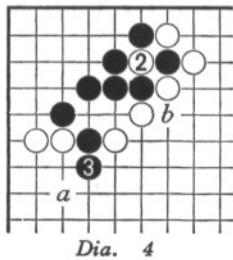
### Wedge and Cutting Tesuji.

*Dia. 1.* This is a variation of a common double kakari joseki in which White makes some overplays. White 1, to surround the corner, is all right, but if White really intends to hold Black in he must play either 3 or 7 differently—3 at *a*, for example.

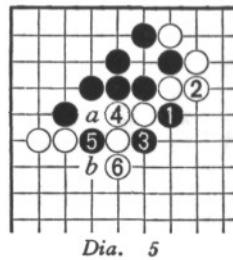
Anyway, after 7 Black has a way to break through White's wall and get out into the center so that his group can take an active part in the game.



*Dia. 2.* Black starts by wedging into the gap in the wall at 1. *Dia. 3.* If White tries to hold him in with 2, he has a snap-back.



Dia. 4



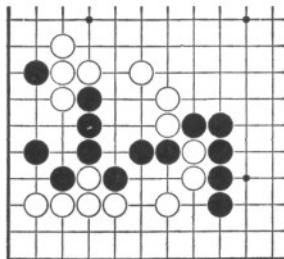
Dia. 5

*Dia. 4.* So White has to let him out. Perhaps he will take the ko at 2, but then Black 3 threatens *a* and *b*, and White is put on the defensive.

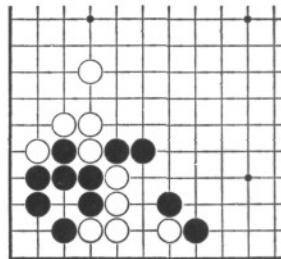
*Dia. 5.* Black must not give atari at 1 and 3 before wedging in at 5, or White will be able to answer at 6. That makes *a* and *b* miai, and Black can no longer get out.

*Problem 1.* Black to play and escape.

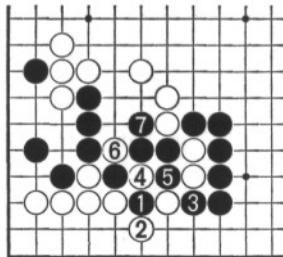
*Problem 2.* A different tesuji: White to play and escape.



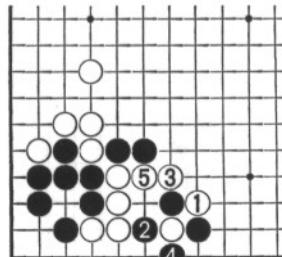
Problem 1



Problem 2



*Ans. to Prob. 1*



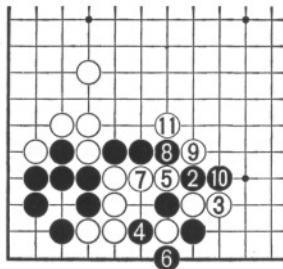
*Ans. to Prob. 2*

*Answer to problem 1.* The wedge at 1 and atari at 3 are the tesuji combination. If White plays 4 at 5, Black has a snap-back.

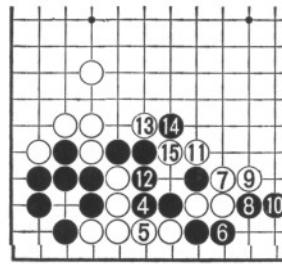
*Answer to problem 2.* White must cross-cut with 1. If he played 1 at 3, Black 5 would capture at least four of his stones.

*Dia. 2a.* Black's strongest resistance is the atari at 2. Sometimes this works, but here White has a fool-proof escape in the sequence through 11, and an even better one in 7 at 8 if he can stand 8 at 7 and the ko that leads to.

*Dia. 2b.* This is a variation in the previous sequence. Black 4 leads only to failure.



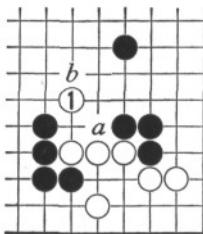
*Dia. 2a*



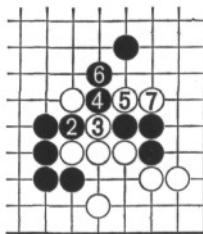
*Dia. 2b*

## The One-Point Jump Tesuji

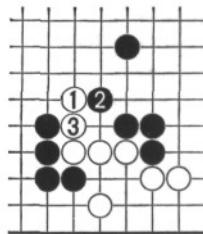
*Dia. 1.* White's one-point jump to 1 is a well-known tesuji for getting out into the center. A non-jumping play would fail: White *a*, Black *b*, for example.



*Dia. 1*



*Dia. 2*



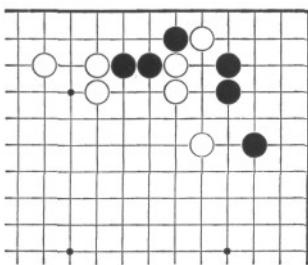
*Dia. 3*

*Dia. 2.* If Black tries to cut with 2 and 4, he loses three stones to the right. Observe that White jumped out to the left in Dia. 1, the side away from the weakness in Black's position that made the tesuji work.

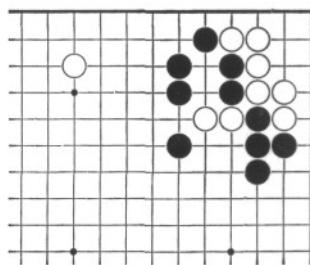
*Dia. 3.* If Black is going to answer White 1 at all he should play the slapping tesuji in this diagram, which may have some forcing value, although it fills one of Black's own liberties on the left.

*Problem 1.* Black to play and escape.

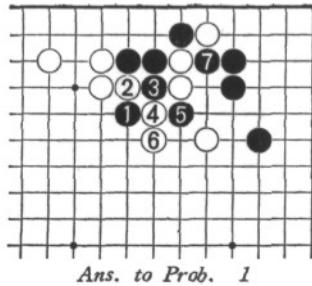
*Problem 2.* White to play and escape.



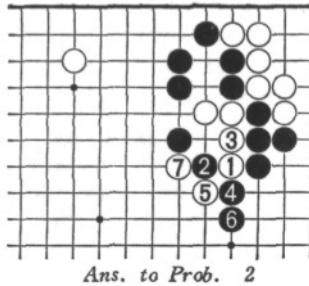
*Problem 1*



*Problem 2*



*Ans. to Prob. 1*



*Ans. to Prob. 2*

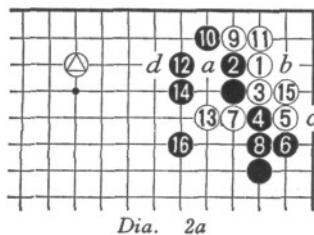
*Answer to problem 1.* Since White 2 etc. fail, White should play 2 at 4. Black 1 at 4 would not work.

*Answer to problem 2.* White 1 is the tesuji. Black's clamping move at 2 loses to White 3, 5, and 7. If Black connects after 7, White will drive out to the left, endangering the black stones on the upper side.

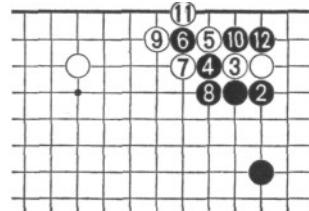
*Dia. 2a.* The problem comes from this three-three point invasion of the corner. Since Black 16 does not capture the two white stones, Black's whole idea of blocking at 2 is incorrect.

If Black plays 14 at IS in this sequence and tries to kill the corner, then White 14, Black *a*, White *b*, Black *c*, White *d*, and because of the stone marked  $\Downarrow$  Black cannot win the fight. The best he can do from there is to live on the upper side and let White live in the corner. The details are left to you as a problem.

*Dia. 2b.* Accordingly, Black should play 2 on this side and follow a variation such as the one shown.



*Dia. 2a*

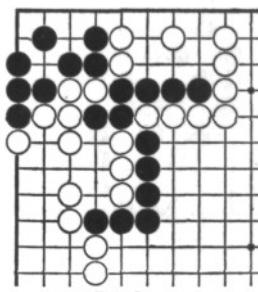


*Dia. 2b*

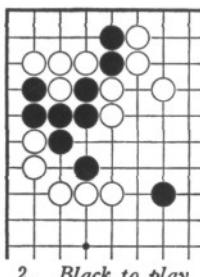
## More Problems.

These problems feature wedge, cutting, one-point jump, and other tesuji.

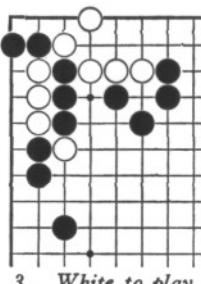
Numbers 2 and 7 involve ko. Number 5 could be called an escape-or-live problem.



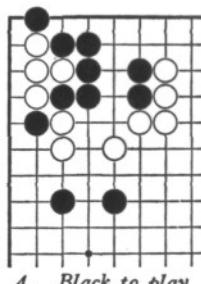
### 1. Black to play



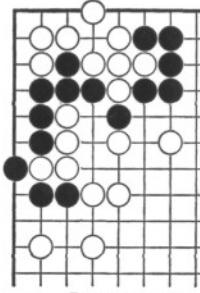
## 2. Black to play



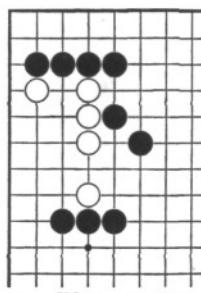
### 3. White to play



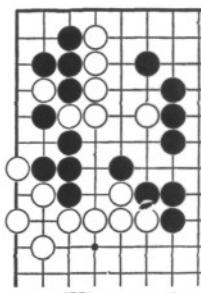
#### 4. Black to play



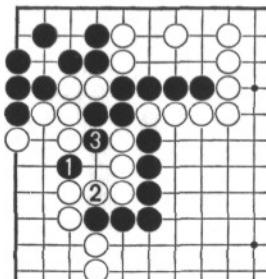
**5. Black to play**



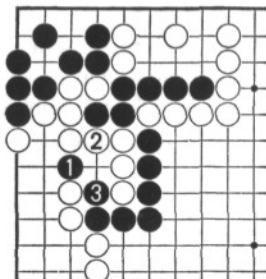
**6. White to play**



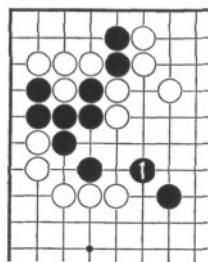
7. White to play



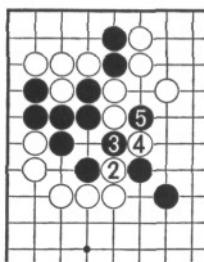
Ans. to Prob. 1



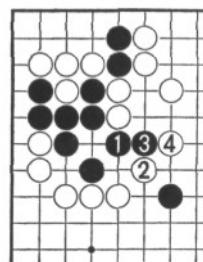
Variation



Ans. to Prob. 2

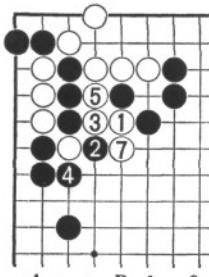


Continuation



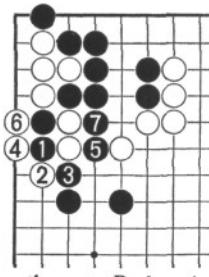
Failure

Ko, but White risks  
a lot.

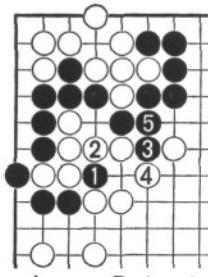


Ans. to Prob. 3

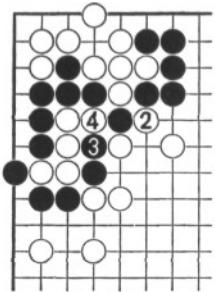
⑥ connects



Ans. to Prob. 4



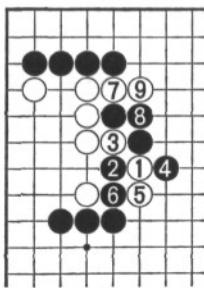
Ans. to Prob. 5



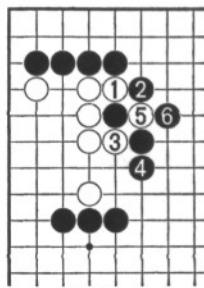
*Variation*

⑤ takes

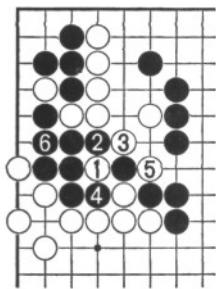
⑥ retakes



*Ans. to Prob. 6*

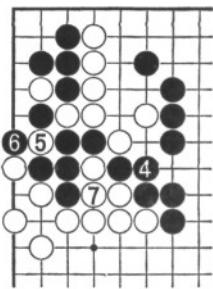


*Failure*



*Ans. to Prob. 7*

⑦ takes ko



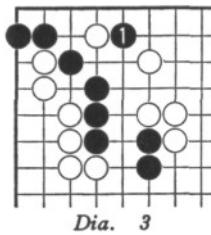
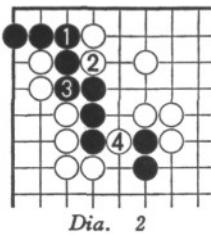
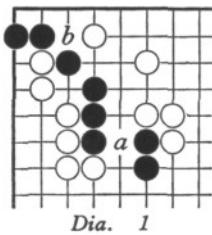
*Variation*

## 10. SACRIFICE TO GAIN TEMPO

### Cutting into the Knight's Move

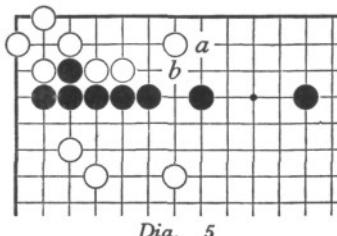
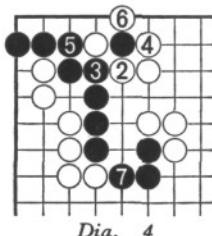
*Dia. 1.* White is threatening to cut at both *a* and *b* and Black is in trouble. If he connects at *a* and lets White have the corner with 6, his own group will be drifting without eye shape, while White's two groups will be linked up.

*Dia. 2.* But if he connects at 1, White will force him again with 2, and if he connects at 3 he will only be giving away more stones. He needs to find a way to connect at 1 in sente.



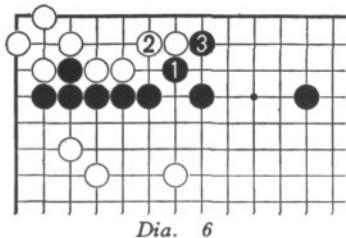
*Dia. 3.* The tesuji that enables him to do so is 1 in this diagram, cutting into White's knight's move. It is a sacrifice, but it must be answered, because it threatens the white stone it touches.

*Dia. 4.* While White is capturing with 2, 4, and 6 Black is able to connect at 3 and 5 in sente, then connect again at 7. Now his stones are all linked together and he has one eye.

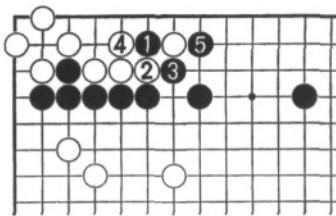


*Dia.* 5. Another example: here Black wants to seal White into the corner and make territory on the upper side. There are three moves to be considered in this shape, but the first of them, Black *a*, can be quickly rejected because of White's answer at *b*.

*Dia.* 6. That leads to considering Black 1, the second possible move. It seals White in, all right, but Black is not yet taking full advantage of the position.



*Dia.* 6

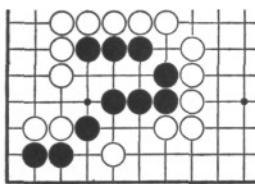


*Dia.* 7

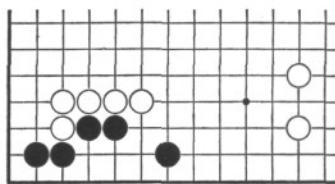
*Dia.* 7. The third possible move is the best. Black offers a sacrifice at 1—this keeps White from playing 2 in *Dia.* 6—and continues with 3 and 5. If White captures after 5, Black has sente. If White does not capture, Black is much better off than he was in *Dia.* 6. White may try 2 at 4, but Black can play 3 and 5 just the same.

*Problem 1.* Black to play and live.

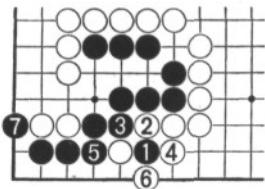
*Problem 2.* White to play and make good, solid territory on the lower side.



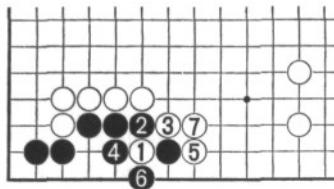
*Problem 1*



*Problem 2*



*Ans. to Prob. 1*



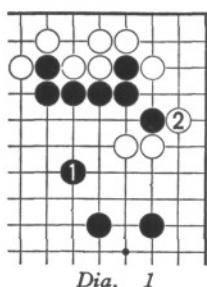
*Ans. to Prob. 2*

*Answer to problem 1.* Black must sacrifice to connect in sente.

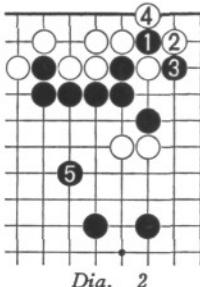
*Answer to problem 2.* If White played 1 at 3, then Black 1, White 5, and White would have to worry about being cut at the point 7 or clamped at the right of 5.

## Cutting to Gain Tempo.

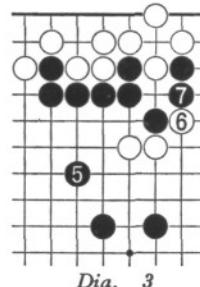
*Dia. 1.* With 1, Black can keep the pair of white stones from escaping into the center, but White can link himself to the corner with 2. Black needs to prevent this link-up before playing 1.



*Dia. 1*



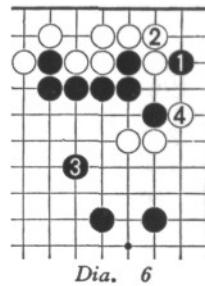
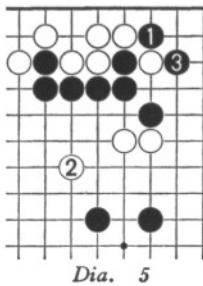
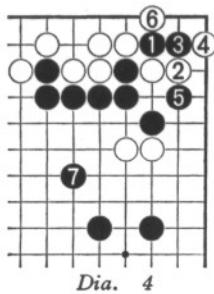
*Dia. 2*



*Dia. 3*

*Dia. 2.* The tesuji is the sacrifice at 1. Black 3 completes the preparations, and now Black 5 captures White's two stones.

*Dia. 3.* White 6 is met by Black 7, and White cannot link up. His correct move is to abandon the pair of stones on the outside and play 6 at 7.



*Dia. 4.* If White tries to keep his escape route open by answering 1 with 2, Black fattens the sacrifice and seals him in tighter.

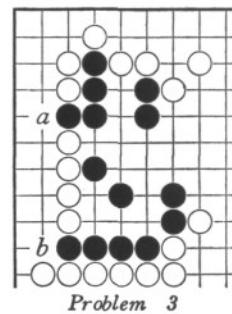
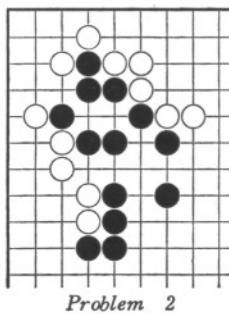
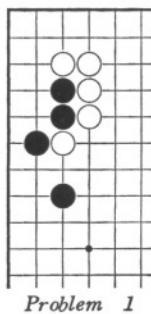
*Dia. 5.* Perhaps White will choose to ignore Black 1 and run out at 2. Then Black can take the corner territory and get secure eye shape with 3, and still chase the weak escaping stones.

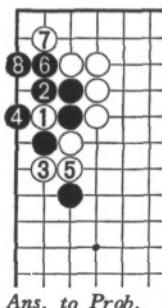
*Dia. 6.* This Black 1 is a pitfall for the unwary. It looks like a tesuji, but it has no effect if White connects properly.

*Problem 1.* White to play and break up the left side.

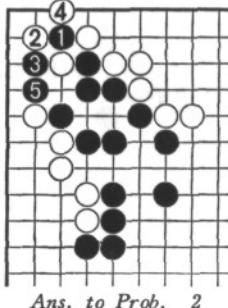
*Problem 2.* Black to play and keep White separated.

*Problem 3.* Black to play. The four white stones seem to be able to save themselves at either *a* or *b*; what can Black do about this?

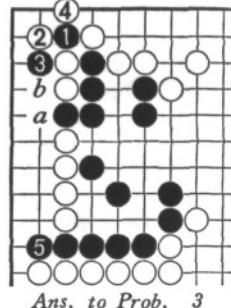




*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Ans. to Prob. 3*

*Answer to problem 1.* The sacrifice at 1 makes 3 an atari, (if White played 3 without 1 Black would answer at 5), and Black is barely able to live in gote.

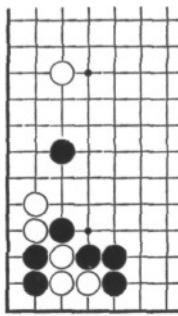
*Answer to problem 2.* Black 1 and 3 are the only way.

*Answer to problem 3.* After 5, if White plays *a*, Black can answer at *b*. If White played 4 at *b*, Black *a* would put him in atari, again giving Black time to play 5.

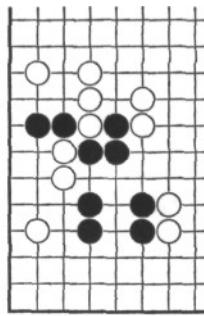
## More Problems.

These problems call for sacrifices of various kinds.

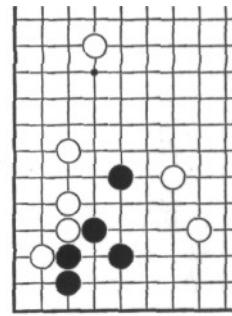
1. White to develop on the left side.
2. Black to defend the corner.
3. White to shut Black in.
4. Black to keep White separated.
5. White to defend both cutting points, *a* and *b*.
6. Black to capture the cutting stone.
7. Black to break up the white group on the left and take care of his center.
8. Timing is important in this one.



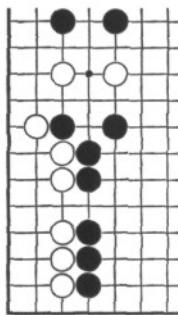
1. White to play



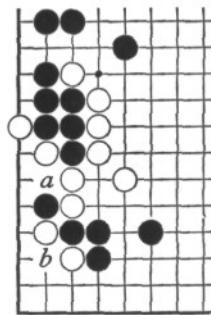
2. Black to play



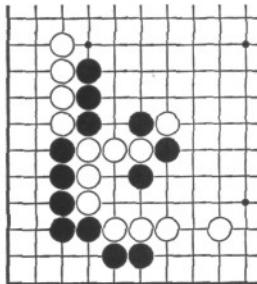
3. White to play



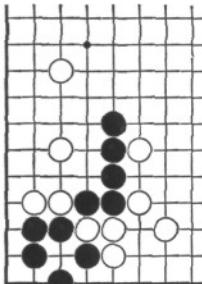
4. Black to play



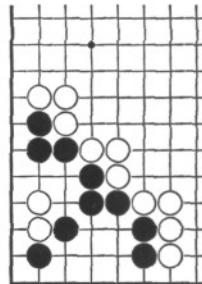
5. White to play



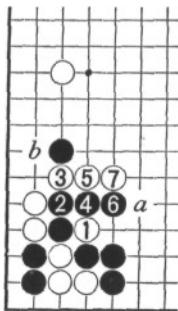
6. Black to play



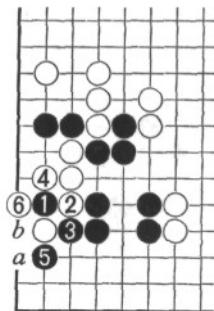
7. Black to play



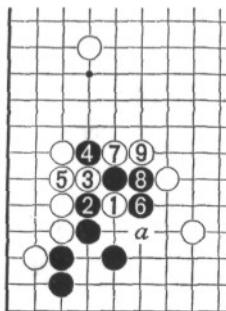
8. White to play



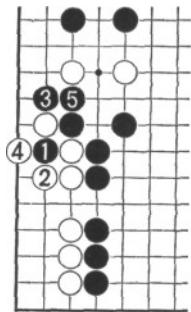
Ans. to Prob. 1



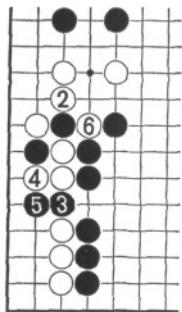
Ans. to Prob. 2



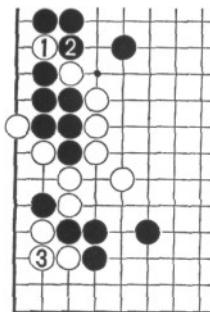
Ans. to Prob. 3



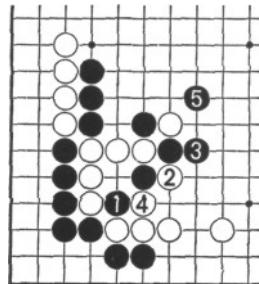
Ans. to Prob. 4



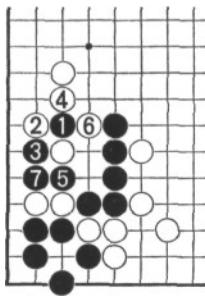
Corner dies



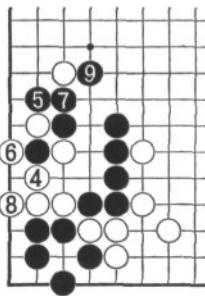
Ans. to Prob. 5



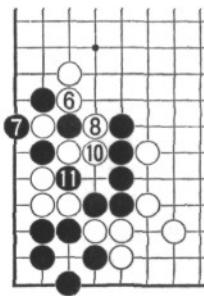
Ans. to Prob. 6



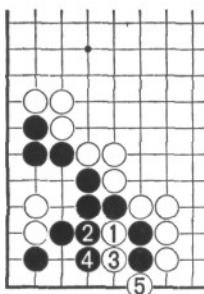
*Ans. to Prob. 7*



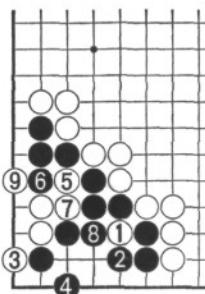
*Variation*



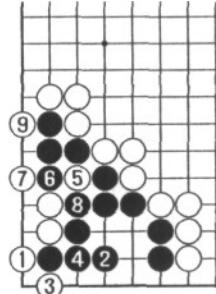
*White : failure  
⑨ connects*



*Ans. to Prob. 8*



*Variation*



*Variation*

## Notes

*Problem 1.* White 7 promises an atari at *a*, but depending on the surrounding positions, 7 at *b* might be correct.

*Problem 2.* After 6, Black *a* would be very big, since White could not answer at *b*.

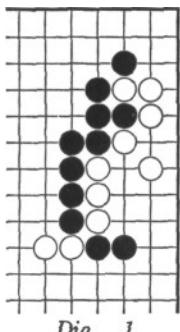
*Problem 3.* Notice the squeeze coming at *a*.

## 11. TESUJI FOR ATTACK

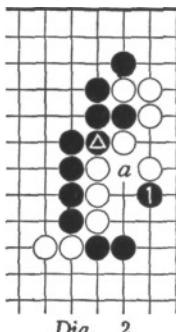
To attack an enemy group is not usually to destroy it, but to shut it in forcibly, or to snatch away its eye space and send it running into the center; in other words, to make the enemy defend it while you develop your own positions.

### The Eye-Stealing Tesuji.

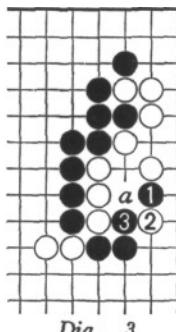
*Dia. 1.* This position might arise in a handicap game. Black has a move that will strengthen his two stones on the right side while very nearly killing the white group in the corner.



*Dia. 1*



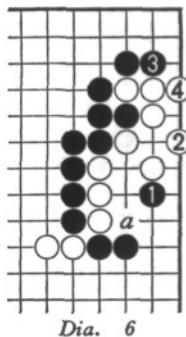
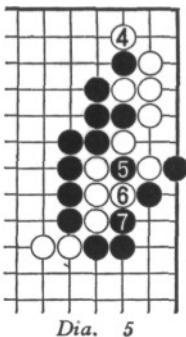
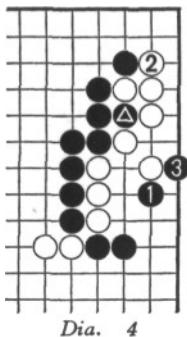
*Dia. 2*



*Dia. 3*

*Dia. 2.* Black 1 is the mighty move. It is called the eye-stealing tesuji because in conjunction with Black  $\Rightarrow$  it makes the potential eye at *a* false.

*Dia. 3.* How should White answer Black 1 ? He cannot capture it: after Black 3 he is barred from *a* by shortage of liberties, and worse yet, Black is threatening a snap-back.



*Dia. 4.* If he crawls toward the corner with 2, Black loses a second eye-stealing tesuji on him at 3.

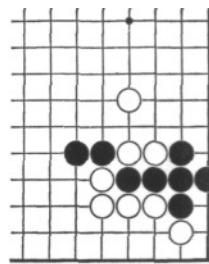
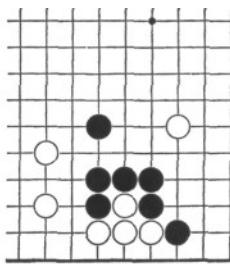
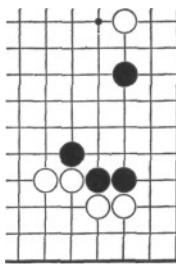
*Dia. 5.* While White lives with 4, Black captures his valuable cutting stones with 5. White cannot connect after 7 because of shortage of liberties.

*Dia. 6.* White's best response is to save his whole group with 2, but he becomes tightly confined. Black has made a good start on eye shape for himself, since *a* is his sente.

*Problem 1.* White to play.

*Problem 2.* White to play on the right side.

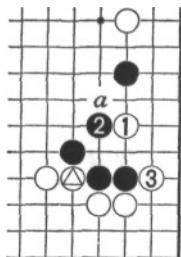
*Problem 3.* Black to play on the right side.



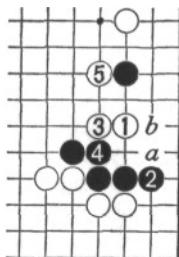
*Problem 1*

*Problem 2*

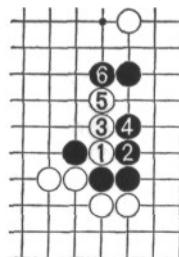
*Problem 3*



*Ans. to Prob. 1*



*Dia. 1a*



*Dia. 1b*

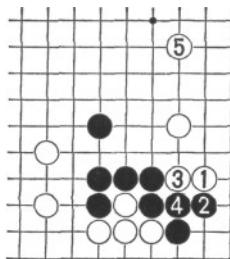
*Answer to problem 1.* White 1, with White  $\Downarrow$ , forms the eye-stealing tesuji. If Black answers at 2 White can link underneath at 3, leaving Black with no eye space and the threat of *a* to worry about.

*Dia. 1a.* If Black plays 2 to keep White from linking up there, White's attack becomes even stronger. Or if Black played 2 at *a*, White could answer at *b*.

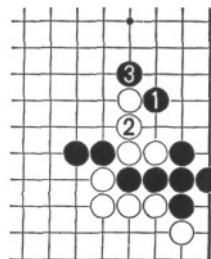
*Dia. 1b.* Cutting at 1 does not gain very much.

*Answer to problem 2.* White 1 is the eye-stealing tesuji. White is developing his own group while limiting Black to one eye in the corner.

*Answer to problem 3.* Black 1 is the eye-stealing tesuji, and 3 is a strong follow-up move. White is in trouble.



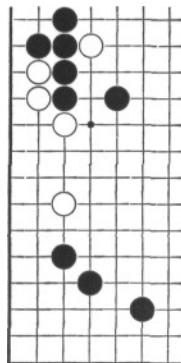
*Ans. to Prob. 2*



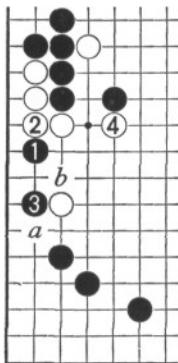
*Ans. to Prob. 3*

## The Placement Tesuji.

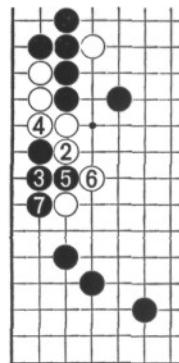
*Dia. 1.* Black may not be able to capture the white group, but he can certainly put it on the run. He has a tesuji that will take away all its eye space on the left edge.



*Dia. 1*



*Dia. 2*



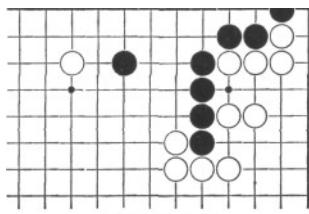
*Dia. 3*

*Dia. 2.* Black 1 hits the right point. If White connects at 2, Black can link up to his corner with 3; White cannot stop him with 4 at a because of Black *b*. White's eye space is gone, and he is forced to run away.

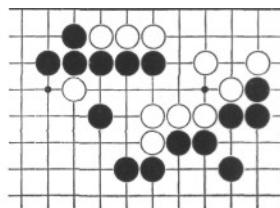
*Dia. 3.* If White plays 2 this way then Black, rather take a couple of stones in gote, (Black 4, White 3), should draw back, getting essentially the same result as before.

*Problem 1.* White to play on the upper side.

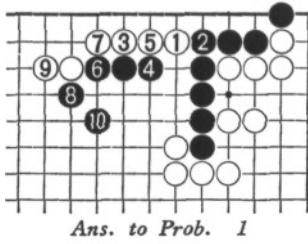
*Problem 2.* Black to play in the corner.



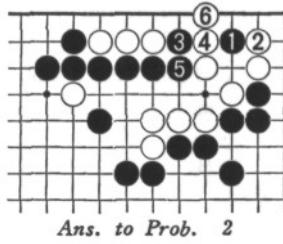
*Problem 1*



*Problem 2*



*Ans. to Prob. 1*



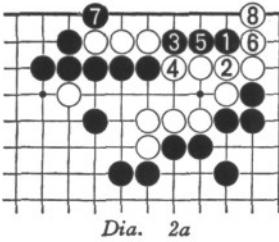
*Ans. to Prob. 2*

*Answer to problem 1.* White 1 earns a large profit on the upper side while leaving Black with uncertain eye shape.

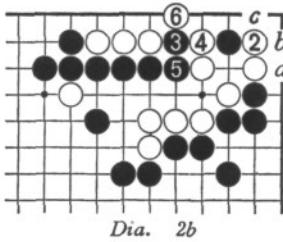
*Answer to problem 2.* Black 1 and 3 are a tesuji combination that forces White to leave three of his stones in hock-while making a small life.

*Dia. 2a.* White fares even worse if he plays this way.

*Dia. 2b.* White has this variation, but it risks Black *a*, White *b* Black *c*, and a life-or-death ko fight.



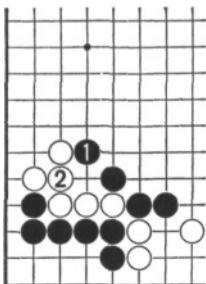
*Dia. 2a*



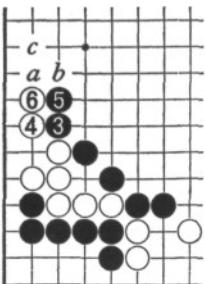
*Dia. 2b*

## Draw Back to Capture.

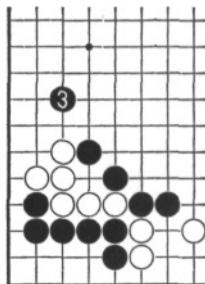
*Dia. 1.* The eye-stealing tesuji at 1 compels White to connect at 2, and Black is on the attack. The question is what his next move should be.



Dia. 1



Dia. 2



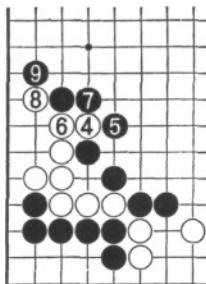
Dia. 3

Dia. 2. If he makes the hane at 3, White will start crawling with 4, and it will not be very easy to stop him. If Black tries to play *a* after 6, White may well be able to cut at *b*, or failing that, at least he can clamp *a* with *c* and continue his flight.

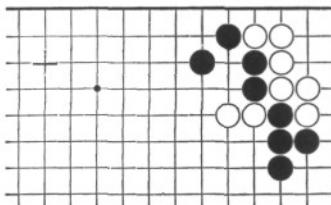
Dia. 3. The solution is to draw back a space. This is a kind of placement tesuji.

Dia. 4. Black answers 4 with 5, 6 with 7, 8 with 9, and that is all the further White can get. His group is dead.

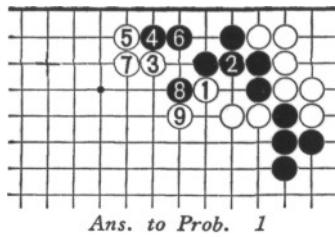
Problem 1. White to play and capture.



Dia. 4



Problem 1

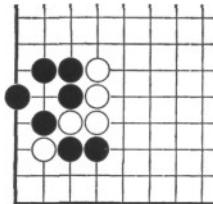


*Ans. to Prob. 1*

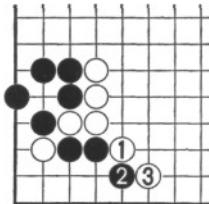
*Answer to problem 1.* After 9 Black can neither escape, live, nor capture any of the white stones surrounding him.

### The Double Hane Tesuji.

*Dia. 1.* White cannot do anything to threaten Black's eye shape in this position, but he has a way of shutting him in tightly on the lower side.

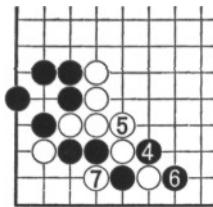


*Dia. 1*

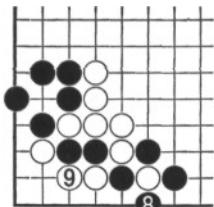


*Dia. 2*

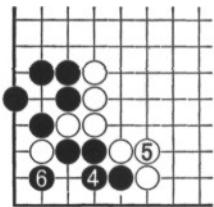
*Dia. 2.* The tesuji starts with White 1, a hane, and continues with White 3, a second hane.



Dia. 3



Dia. 4



Dia. 5

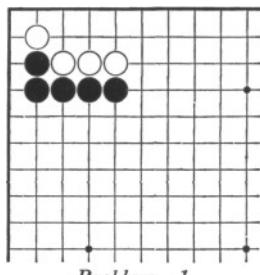
*Dia. 3.* White is leaving himself open to Black 4 and 6, which capture one of his stones, but he can do that because he has a double atari at 7.

*Dia. 4.* The double hane tesuji always brings with it the possibility of an exchange like this, and sometimes the exchange variation is the enemy's best choice. Here, however, it seems to favor White by quite a bit.

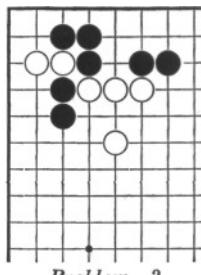
*Dia. 5.* So Black had better connect at 4 and let White do likewise at 5. White keeps sente because Black has to make yet another defensive move at 6.

*Problem 1.* Black to play and attack, forcing White to choose between giving up the corner and being tightly shut in.

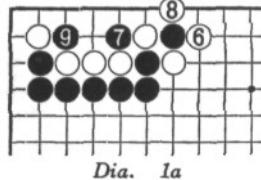
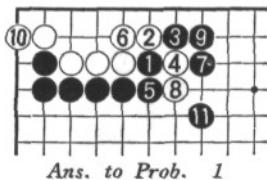
*Problem 2.* White to play and close off the left side. In this double hane tesuji, the first move is not a hane.



Problem 1



Problem 2



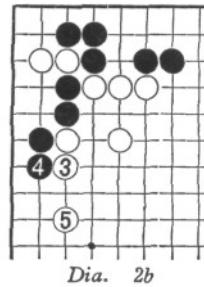
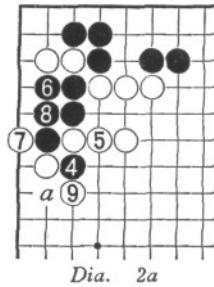
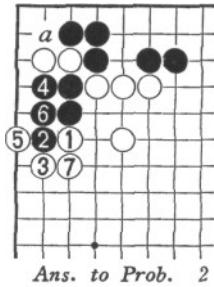
*Answer to problem 1.* Black 1 and 3 are the double hane. Black can play 7 even if the ladder is broken, since after 8 and 9, White has to play 10 to live in the corner.

*Dia. 1a.* The exchange variation gives White good shape on the outside, but the loss of the corner is big.

*Answer to problem 2.* White 1 and 3 form the double hane tesuji, even if 1 is a nose play, not a hane, and White gets an excellent position. After 7 the pair of white stones in the corner are dead, but as an interesting problem, how must Black answer if White plays a?

*Dia. 2a.* The exchange variation, (6 at a), is not a good idea, but Black may want to play 4 to give himself something to work with on the outside. This would be especially true if the ladder were broken and White had to play 9 at a.

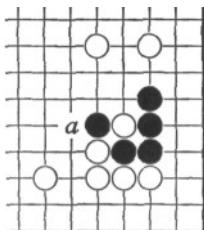
*Dia. 2b.* If the ladder were broken and White were weak in the surrounding area, he would have to forego the double hane and play this way instead.



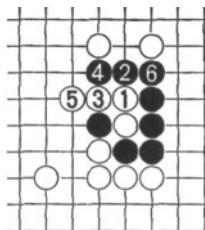
## The Eye-Stealing Clamping Tesuji.

*Dia. 1.* Can you find the right attacking move for White in this position? To give atari at *a* would only be to help Black make two eyes.

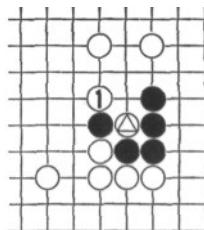
*Dia. 2.* And to draw out of atari like this would be a worse mistake, doing more harm to friend than to foe. White must be more subtle.



*Dia. 1*



*Dia. 2*

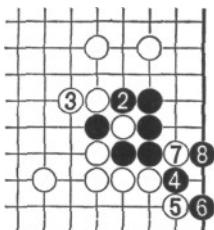


*Dia. 3*

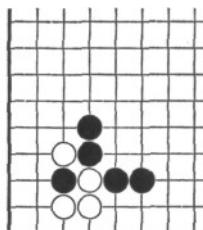
*Dia. 3.* White 1, which makes Black's potential eye at  $\Downarrow$  false, is the eye-stealing clamping tesuji. Once you see it, its power is obvious.

*Dia. 4.* Black captures with 2, but White 3 keeps him from escaping, and he is hard pressed to come up with two eyes. Ko, with 4, 6, and 8, is his best bet.

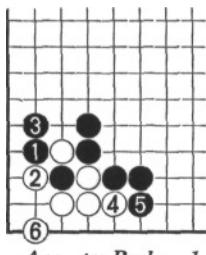
*Problem 1.* Black to play. Although he cannot kill the corner, he can seal it in on both sides.



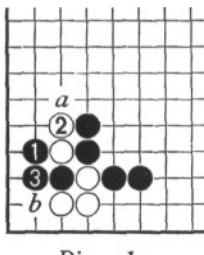
*Dia. 4*



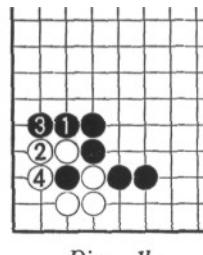
*Problem 1*



*Ans. to Prob. 1*



*Dia. 1a*



*Dia. 1b*

*Answer to problem 1.* Black 1 is the tesuji.

*Dia. 1a.* If White comes cut of atari. Black connects at 3, threatening both *a* and *b*.

*Dia. 1b.* This Black 1 gives White more corner territory than before, and fails to seal him in on the lower side. There is also the danger of White's playing 2 at 4, followed by Black 2, White 3, and a ko fight.

## More Problems.

The objectives of the attacks to be made are as follows:

Problem 1. To close off the right side.

Problem 2. To capture at least part of the enemy group.

Problem 3.      //      //      //      //

Problem 4.      //      //      //      //

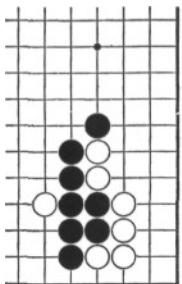
Problem 5. To gain the upper hand on the right side.

Problem 6. To gain profit in sente.

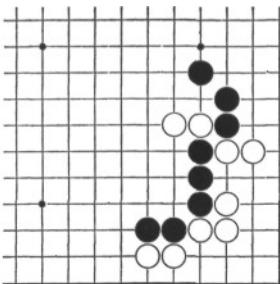
Problem 7. To put the enemy on the run.

Problem 8. To kill the corner.

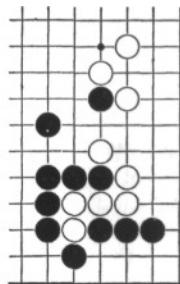
Problem 9. To seal the enemy incompletely. (Try a big sacrifice).



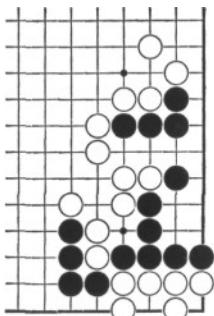
### *1. Black to play*



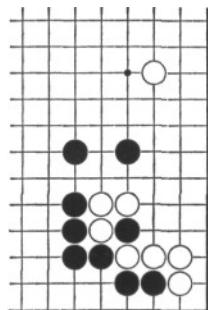
## 2. White to play



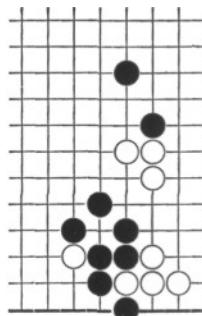
### 3. Black to play



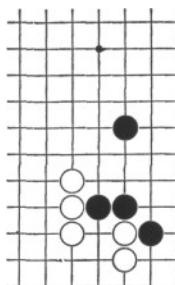
4. *White to play*



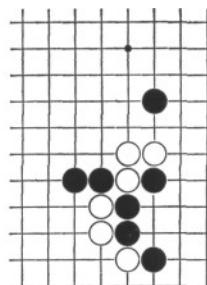
*5. Black to play*



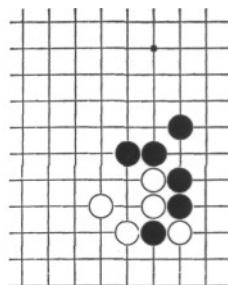
6. *Black to play*



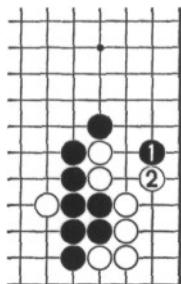
7. White to play



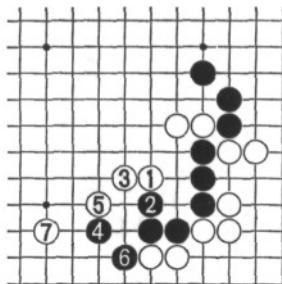
8. *White to play*



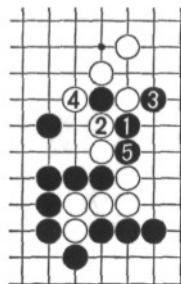
*9. Black to play*



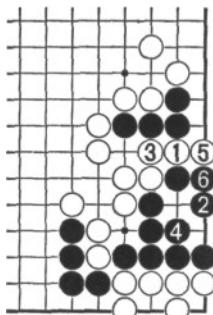
Ans. to Prob. 1



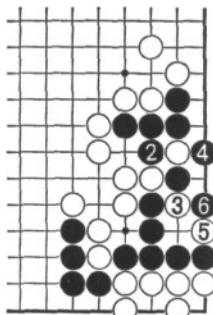
Ans. to Prob. 2



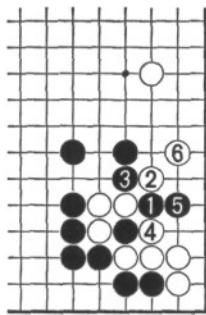
Ans. to Prob. 3



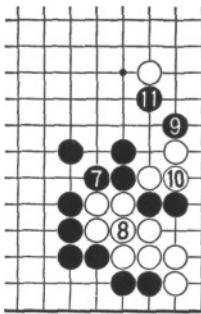
Ans. to Prob. 4



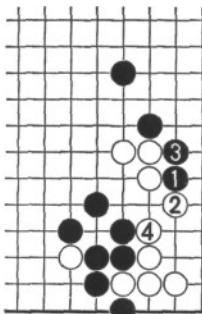
Variation: ko



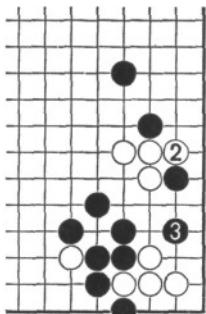
Ans. to Prob. 5



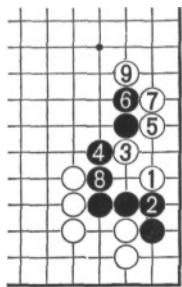
Continuation



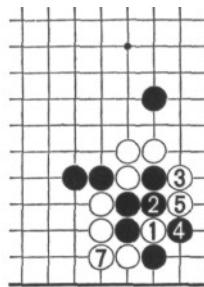
Ans. to Prob. 6



Failure for White

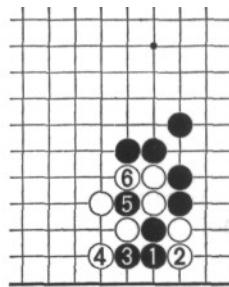


*Ans. to Prob. 7*

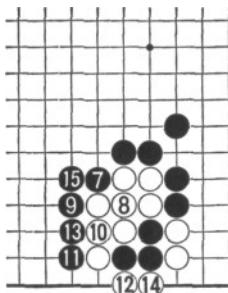


*Ans. to Prob. 8*

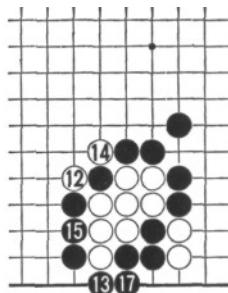
### ⑥ connects



*Ans. to Prob. 9*



*Continuation*

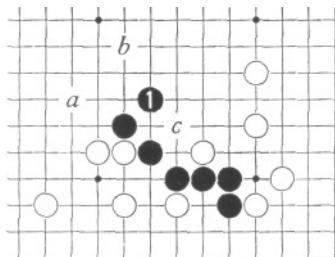


Failure for White

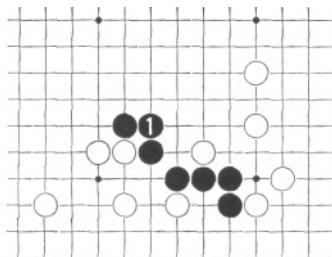
### ⑯ connects

## The Diagonal Connection.

*Dia. 1.* Although it lacks the clean lines of a solid connection, a diagonal connection is more developmental and is often correct. Here, for example, Black 1 reaches farther out into the center than a solid connection would, and prepares for subsequent extensions to *a*, *b*, etc. This outweighs the disadvantage of giving White *c*, a move which would not really add much to his position.



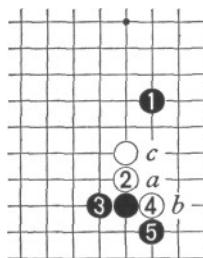
*Dia. 1*



*Dia. 2*

*Dia. 2.* The solid connection is not too bad, but it does not move Black forward enough.

*Dia. 3.* This is an obscure variation of a popular pincer joseki. Since Black 5 threatens Black *a*, White *b*, Black *c*, which would be ruinous, White has to answer with some kind of connection in the corner. What move would you choose?



*Dia. 3*

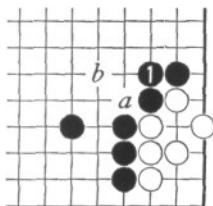
## 12. HOW TO CONNECT

Connecting properly is an important part of good go technique. This chapter covers the basic moves involved: all of the problems, for a change, are collected at the end.

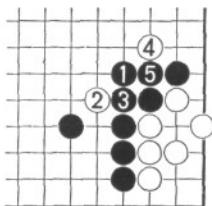
Connections are defensive moves, but they also serve to develop one's positions. The principle in connecting is to choose the connection that develops the most while still being strong enough to defend adequately.

### The Solid Connection.

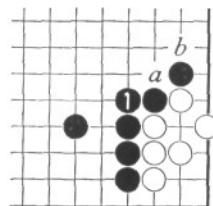
*Dia. 1.* A solid connection, such as Black 1, is the least developmental, but has the advantage that there is no way for the enemy to monkey with it. In this position it gives Black a clean, strong shape with no significant weaknesses: if White cuts at *a*, Black can capture him with *b*.



*Dia. 1*



*Dia. 2*



*Dia. 3*

*Dia. 2.* A double diagonal connection like this one is more efficient, in a way, because it defends two cutting points at once, but unfortunately it lets White play 2 and 4 and in effect get two free moves while forcing Black to connect three times. The added efficiency of a diagonal connection must always be weighed against the value of the forcing moves it gives the enemy.

*Dia. 3.* This would be the wrong solid connection, since it would leave White *a* and *b* to aim at.

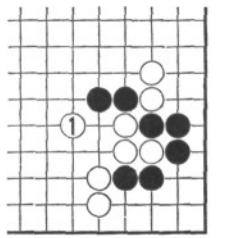
*Dia. 2.* The solid connection is worth considering, but as a means either of surrounding potential territory or developing eye shape it is inferior to the knight's move.

*Dia. 3.* The diagonal connection would be followed automatically by 2 and 3. Clearly Black would now rather have 1 at *a*, which is where it would be if he had made the knight's-move connection.

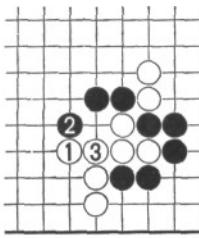
The knight's-move connection is thus even more developmental than the diagonal connection, but it should not be used too freely because of its inherent looseness. It is best suited to positions like the one shown, where two solid walls meet at right angles. The walls are strong, so the connection need not be.

### **The Eye-Protecting Tesuji.**

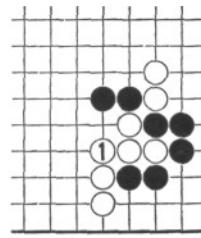
*Dia. 1.* This connection could be looked at as the eye-stealing tesuji in reverse, and it is a vital move to know. It would be unthinkable for White to make any other connection in this position.



*Dia. 1*



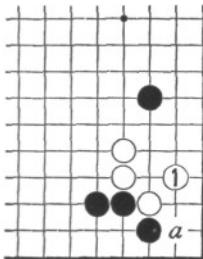
*Dia. 2*



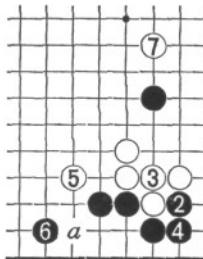
*Dia. 3*

*Dia. 2.* The diagonal connection, for example, would give Black a free move at 2, (the eye-stealing tesuji), which would help him greatly in developing his center stones.

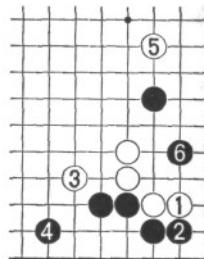
*Dia. 3.* The solid connection would fail to give White any shape, making an unnecessary empty triangle.



Dia. 4



Dia. 5



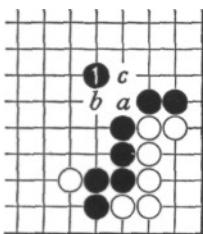
Dia. 6

*Dia. 4.* The diagonal connection is best. One reason is that it gives White a good eye-making next move at *a*.

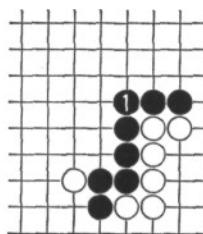
*Dia. 5.* If Black follows the joseki by playing 2 and 4 to take possession of the eye space in the corner, White will jump out to 5, then attack at 7. The isolated black stone faces a solid wall. If Black uses 6 on the right side to forestall 7, White can shut him in on the lower side with *a*.

*Dia. 6.* This White 1 is wrong. Suppose for comparison that 2, 3, and 4 are played as they were in *Dia. 5*. Now when White attacks at 5, Black has an eye-stealing tesuji at 6. White 1 in *Dia. 4* prevented that move. The Knight's-Move Connection.

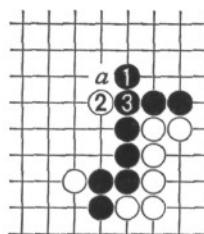
*Dia. 1.* Occasionally the chance to make this knight's-move connection arises—it is standard in the joseki position shown. If White cuts at *a*, Black can ladder him with either *b* or *c*.



Dia. 1



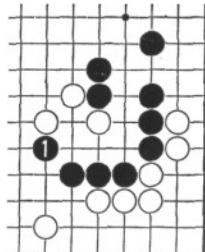
Dia. 2



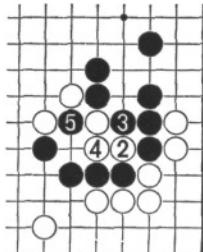
Dia. 3

## Connecting Indirectly.

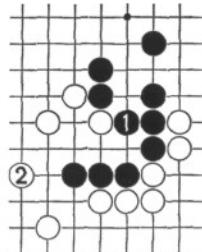
*Dia. 1.* Sometimes it is possible to keep the enemy from cutting by threatening him with shortage of liberties. Black 1 is such a tesuji; it attacks and defends simultaneously.



*Dia. 1*



*Dia. 2*

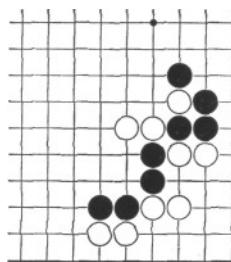


*Dia. 3*

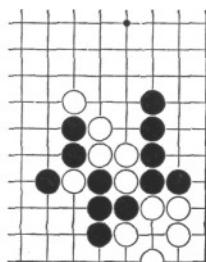
*Dia. 2.* If White tries to cut, he runs into a snap-back. *Dia. 3.* The 'honest' connection has no offensive potential, and leaves White able to play 2.

## Problems.

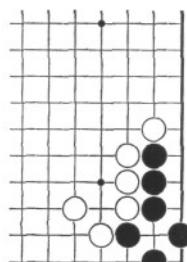
Now exercise your judgement and choose the connection to be made in each of the following positions.



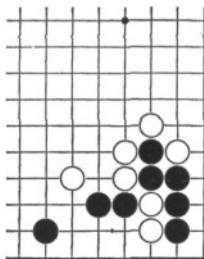
1. *Black to play*



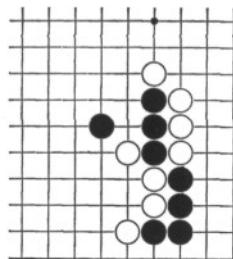
2. *White to play*



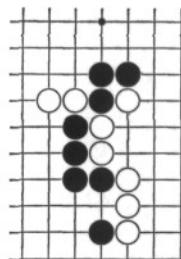
3. *White to play*



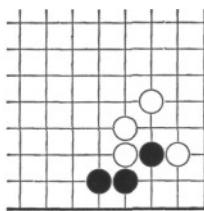
**4. White to play**



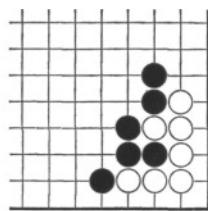
*5. White to play*



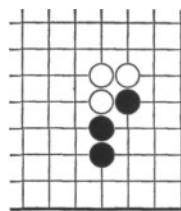
*6. White to play*



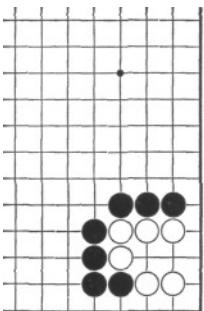
**7. Black to play**



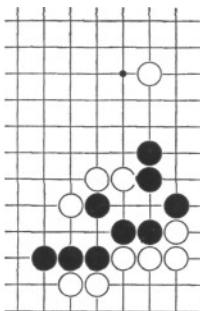
8. *Black to play*



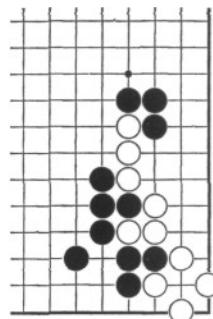
9. *Black to play*



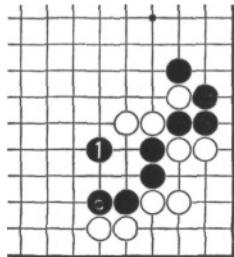
*10. Black to play*



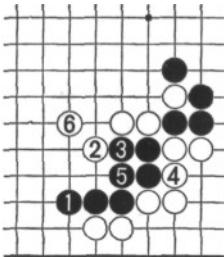
*11. Black to play*



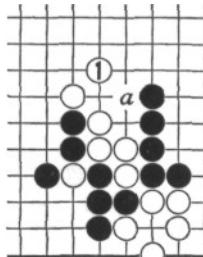
12. White to play



*Ans. to Prob. 1*



*Dia. 1a*



*Ans. to Prob. 2*

*Answer to problem 1.* The eye-protecting tesuji is essential.

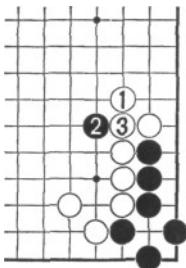
*Dia. 1a.* If Black tries to connect indirectly with 1, White 2 to 6 will destroy his shape.

*Answer to problem 2.* The diagonal connection is clearly best. Black would get practically nothing out of a forcing move at *a*, which he should not play.

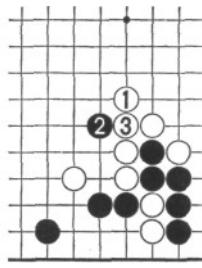
*Answer to problem 3.* The diagonal connection is best. The benefit to White in reaching one line farther up the side outweighs the benefit Black gets from 2.

*Answer to problem 4.* Again the diagonal connection is best.

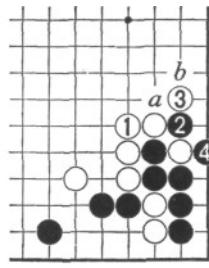
*Dia. 4a.* The solid connection is inferior for two reasons: it does not reach as far up the side, and if Black cuts and captures with 2 and 4, White must worry about a further cut at *a* or clamp at *b*.



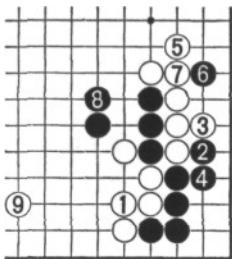
*Ans. to Prob. 3*



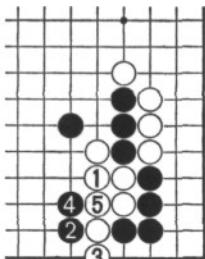
*Ans. to Prob. 4*



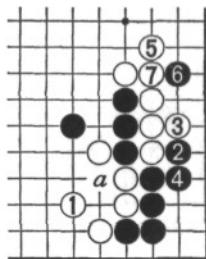
*Dia. 4a*



*Ans. to Prob. 5*



*Dia. 5a*



*Dia. 5b*

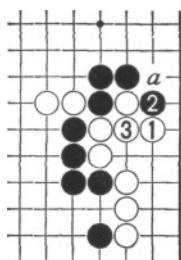
*Answer to problem 5.* The solid connection at I, empty triangle and all, is correct. Black must play 2 and 4 to live in the corner, and White gets a good development on both sides.

*Dia. 5a.* This solid connection is wrong because it gives Black harmful forcing moves at 2 and 4.

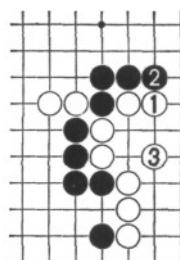
*Dia. 5b.* This diagonal connection is the second best move, because of the danger that Black will eventually be able to pick up a stone with *a*.

*Answer to problem 6.* White 1 is by far the best move. After 2 and 3, White has *a* to look forward to.

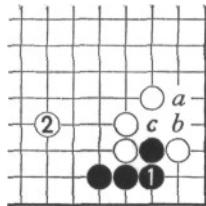
*Dia. 6a.* This White 1 gives Black better shape than in the answer diagram, and White has nothing to look forward to.



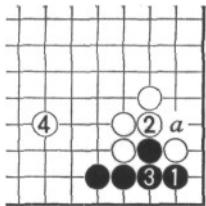
*Ans. to Prob. 6*



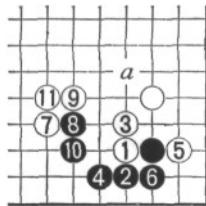
*Dia. 6a*



Ans. to Prob. 7



Dia. 7a



Dia. 7b

*Answer to problem 7.* The patient, solid connection is best. Later on Black can, perhaps, play *a*. If White answers at *b*, Black *c* threatens an atari and a capture; *c* is an important point for Black.

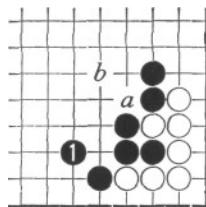
*Dia. 1a.* This Black 1 gives White a forcing move at 2. Now White's position is much stronger, and all Black can do later is to capture at *a* in gote.

*Dia. 7b.* Here is the whole joseki; *a* is another weak point that Black has his eye on.

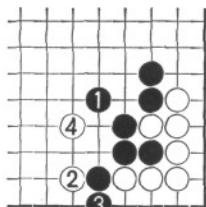
*Answer to problem 8.* Black 1 is, of course, correct. If White cuts at *a*, Black can capture him with *b*.

*Dia. 8a.* This Black 1 is too clever. It gives White a good way to start developing on the lower side.

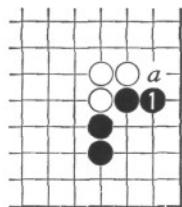
*Answer to problem 9.* Black 1 is correct, since White *a* would not threaten anything.



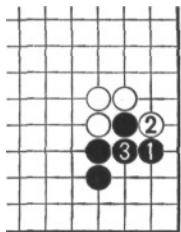
Ans. to Prob. 8



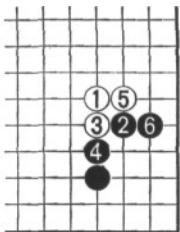
Dia. 8a



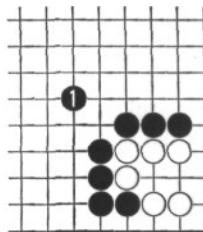
Ans. to Prob. 9



Dia. 9a



Dia. 9b



Ans. to Prob. 10

*Dia. 9a.* There is no reason for Black to make the diagonal connection and let White close off the right side.

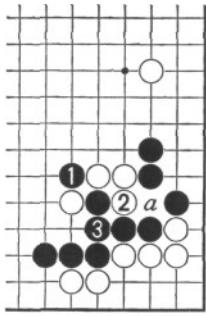
*Dia. 9b.* The problem comes from this joseki.

*Answer to problem 10.* The knight's-move connection is safe here, and gives Black the best development.

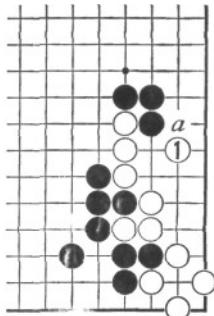
*Answer to problem 11.* Black 1 defends against the cut at *a* while taking a head start in the center fighting.

*Answer to problem 12.* Both from the standpoint of defending white territory and of undermining black territory, 1 is the best move. If Black responds at *a*, White can ignore him and take sente elsewhere without risking too much.

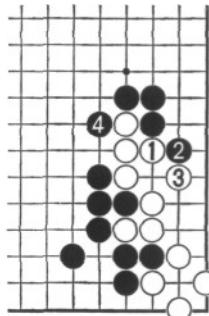
*Dia. 12a.* If White connects this way, Black 2 becomes harder to ignore. Black can use the 2-3 exchange to create shortage of liberties, then shut White in tightly with 4.



Ans. to Prob. 11



Ans. to Prob. 12



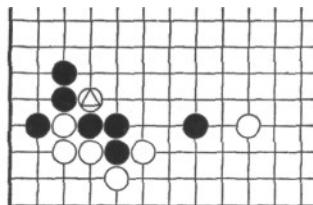
Dia. 12a

## 13. MAKING SHAPE

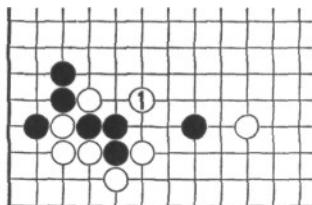
To make shape is to take a weak or defective position—perhaps only the sketchy outline of a position—and transform it into a strong one. Sometimes this can be done just by putting one stone down in the right place, but usually it takes sacrifice tactics, such as squeezing maneuvers.

### Squeeze Tactics

*Dia. 1.* White to play: he needs to defend the corner, but he can take the offensive, too.



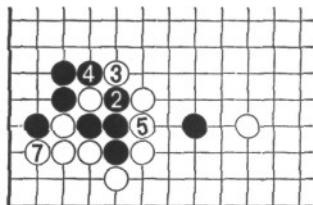
*Dia. 1*



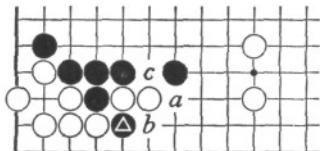
*Dia. 2*

*Dia. 2.* White 1, a squeeze tesuji, will give White good shape and Black bad.

*Dia. 3.* Black is compelled to fill in dead space with 2, 4, and 6 while White stretches taut against him, attacking the group to the left and isolating the stone to the right. It does not matter that neither of them is definitely captured as long as White is developing as beautifully as this.

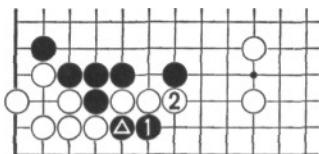


*Dia. 3*  
⑥ connects

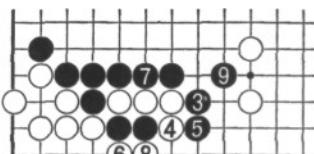


*Dia. 4*

*Dia. 4.* This time it is Black's turn to come up with a squeeze tesuji. Black  $\Rightarrow$  must go; what can Black gain from sacrificing it? Black a, White b would leave him with just as many weaknesses as he has now, and simply to connect at c, although better, would be too easy on White.  
*Dia. 5.* Black should stand by exchanging 1 for 2, adding one liberty to the group he is about to give up.



*Dia. 5*

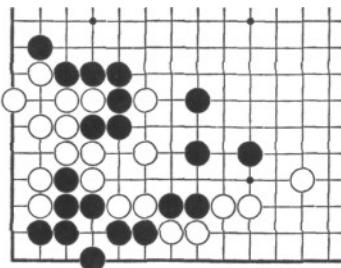


*Dia. 6*

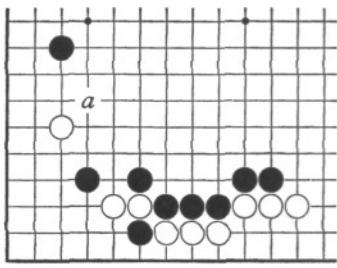
*Dia. 6.* White has to use three stones to capture, so Black gets to make three moves in sente around the outside. Connecting at 9, he has completely solidified his own shape and is looking daggers at the pair of white stones to the right.

*Problem 1.* White to play and improve his shape.

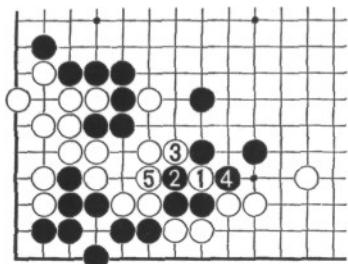
*Problem 2.* Black to play. He would like to attack at a, but first he has to tidy up the lower side.



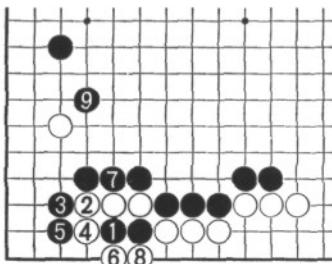
*Problem 1*



*Problem 2*



*Ans. to Prob. I*

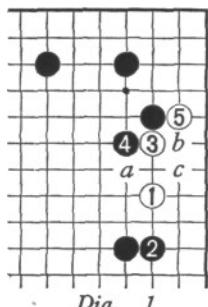


*Ans. to Prob. 2*

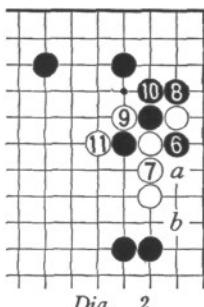
*Answer to problem 1.* White strengthens his shape in sente. If he failed to make these plays, Black would have a good point at 3.

*Answer to problem 2.* Black has to sacrifice two stones to make the squeeze effective.

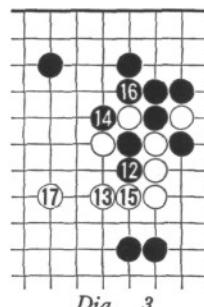
## The Counter-Hane Tesuji.



*Dia.*    *R.*



*Dia.* 2



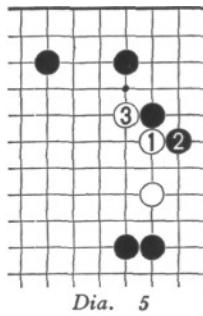
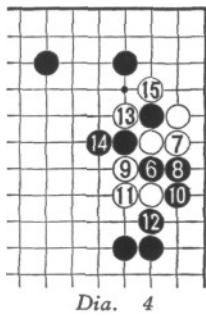
*Dia.* 3

*Dia. 1.* White has invaded at 1, and since Black 2 leaves him no resources in the downward direction, he extends upward with 3. In general, contact extensions like 3 are bad because they strengthen the enemy, but White is fighting at a disadvantage and cannot afford to worry about such relatively minor issues. The important thing is to develop some shape for himself.

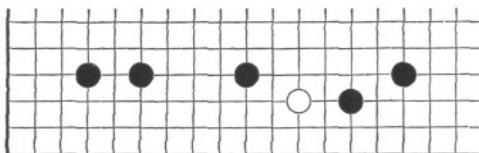
Black's hane at 4 invites White *a*, Black *b*, White *c*, and a ko fight, but White can steer clear of that danger with the counter-hane tesuji at 5.

*Dia. 2.* Of course Black can give atari and capture with 6 and 8, but then White captures a stone in a ladder with 9 and 11. He is also making progress on the right edge, for he has an eye with *a* and *b*.

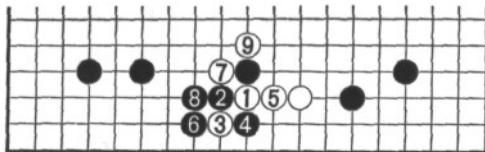
*Dia. 3.* If the ladder does not work, White still has squeeze plays at 13 and 15, and can run away with 17.



*Dia. 4.* This Black 6 and 8 give White an easy life in the corner. *Dia. 5.* If Black plays his hane from underneath, White has a similar counter-hane tesuji at 3. *Problem 1.* White to make shape on the lower side.



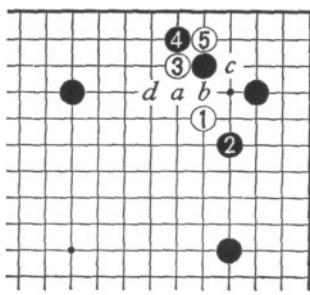
Problem 1



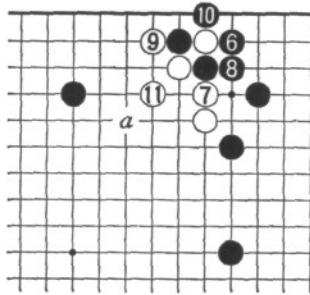
*Ans. to Prob. 1*

*Answer to problem 1.* White 1 forces 2, and 3 is the counter-hane tesuji. However Black answers it, White can find a way to make shape. White has other choices for 1 that may be good, too, but the way of the answer diagram gets him settled the fastest.

## The Cross-Cut Tesuji.



*Dia. 1*



*Dia. 2*

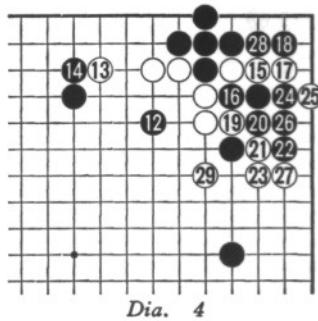
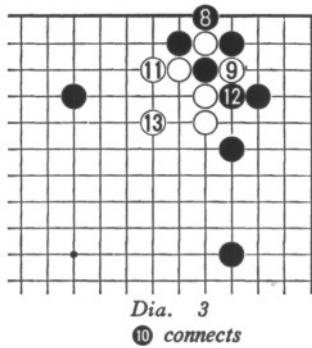
*Dia. 1.* White 1 is a standard invasion to make into a double wing formation around a knight's-move corner enclosure. After 2, White must make shape. White 3 and the cross-cut at 5 are a very effective tesuji combination for doing that.

The next two diagrams will show two standard continuations, but first a warning: before White plays 3, he must make sure that the ladder that would come from Black 4 at *a*, White *b*, Black *c*, White *d* works for him, or he will be in trouble.

*Dia. 2.* Variation one: Black uses three moves to capture one

sacrifice stone, so White gets to build himself up with three moves on the outside. For White 11, faster but looser escaping moves like *a* are available, too.

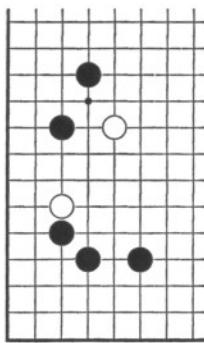
*Dia. 3.* Variation two: Black captures immediately with 8. Now White sacrifices another stone to make good shape. If Black tries to play 12 at 13 and spoil White's shape. ...



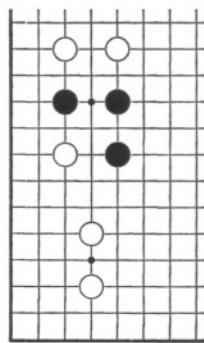
*Dia. 4.* White pulls more sacrifice tricks on him and rips apart the right side.

*Problem 1.* White to make shape on the left side.

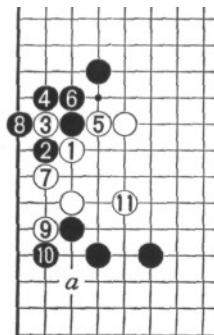
*Problem 2.* Black to strengthen his group. If this operation goes properly, it should see the sacrifice of two stones.



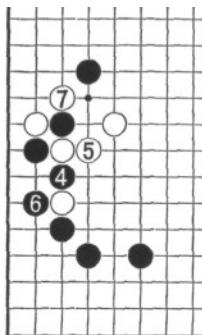
*Problem 1*



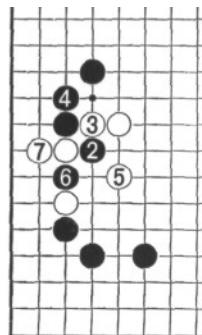
*Problem 2*



*Ans. to Prob. 1*



*Dia. 1a*



*Dia. 1b*

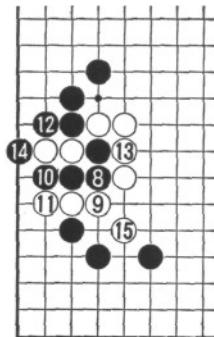
*Answer to problem 1.* White 1 is correct, and 3 is the cross-cut tesuji. White 9 and 11 are nice, making shape while leaving Black with the weak point at *a*.

*Dia. 1a.* Black may actually prefer this variation.

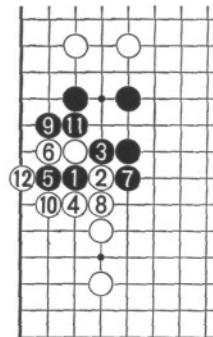
*Dia. 1b.* If Black plays 2 here, White has a beautiful squeeze combination in 5 and 7.

*Dia. 1c.* The continuation from Dia. Ib.

*Answer to problem 2.* Black should have no future worries about eyes.



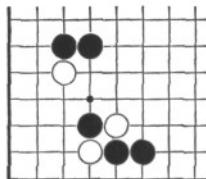
*Dia. 1c*



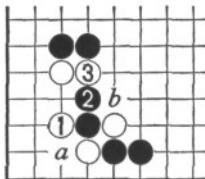
*Ans. to Prob. 2*

## The Driving Tesuji.

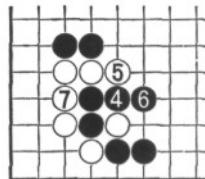
*Dia. 1.* This position could only arise due to a misplay on Black's part, for White is about to smite him with the driving tesuji. So effective is this tesuji that the opportunity to use it rarely occurs against an experienced opponent, who can see it coming and take steps to avoid it.



*Dia. 1*



*Dia. 2*



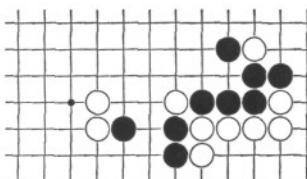
*Dia. 3*

*Dia. 2.* White drives Black upward with 1, then blocks him with 3. If Black now gives atari at a, White b will squeeze him.

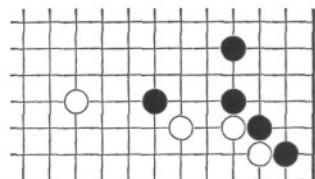
*Dia. 3.* So Black allows himself to be driven to the right, but for White this sequence has been a magnificent success. Starting from three scattered stones, he has gotten a living shape in the corner, put his head out into the center, weakened the black group on the left side, and twisted the one on the lower side into a constricted shape.

*Problem 1.* Black to play and make shape on the lower side.

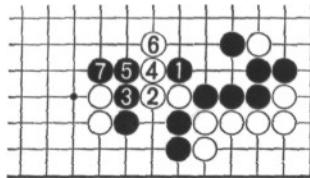
*Problem 2.* White to play. Both of these problems arise from opponent's mistakes.



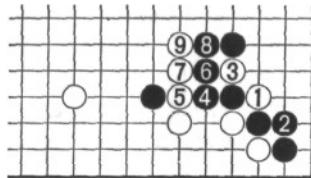
*Problem 1*



*Problem 2*



*Ans. to Prob. 1*

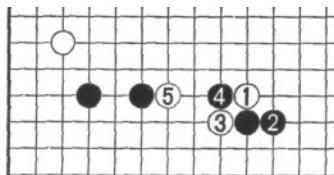


*Ans. to Prob. 2*

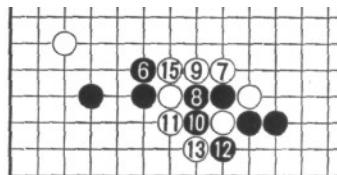
*Answer to problem 1.* After the driving tesuji, Black 7 is the key point.

*Answer to problem 2.* White 1 starts the driving tesuji. White 9 is one good way to finish it, although not a necessary part of the sequence.

## The Attachment Tesuji.



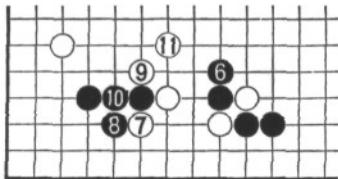
*Dia. 1*



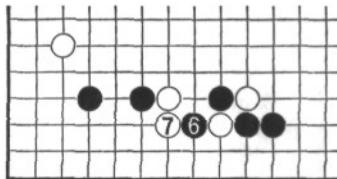
*Dia. 2*  
*14 connects*

*Dia. 1.* The attachment tesuji works by threatening the driving tesuji or some similar driving maneuver. It arises in this diagram when Black draws back at 2. White, looking for a fight, plays the bane at 3, inviting Black to cut at 4. White 5 is the attachment tesuji.

*Dia. 2.* If Black defends at 6, White drives him around with 7 etc., getting a good springboard from which to extend into the center and undermining the lower left corner.



Dia. 3



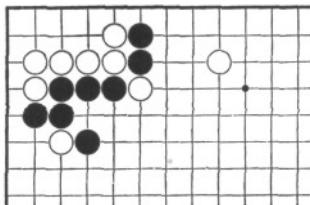
Dia. 4

*Dia. 3.* Rather than try to defend the corner and fail as in the last diagram, Black should play 6 to deprive White of the chance to give atari there. But White now has a headstart and can develop nicely with 7 to 11. Later, Black can capture one stone in sente on the lower side, but he should postpone doing so until he can decide which of the two possible stones to capture.

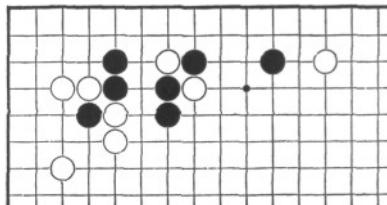
*Dia. 4.* There are other variations, like this one, but no matter what Black does, White will have no trouble developing a position.

*Problem 1.* Black to play and make shape on the upper side.

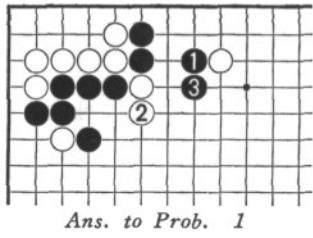
*Problem 2.* White to play and make shape in the upper right.



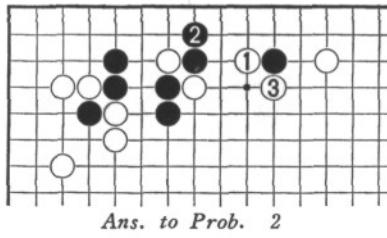
Problem 1



Problem 2



*Ans. to Prob. 1*



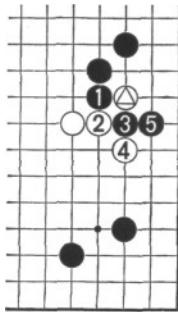
*Ans. to Prob. 2*

*Answer to problem 1.* Black 1 threatens the driving tesuji, as in problem 1 of the previous section. White's best reply is 2 and Black's best continuation is 3.

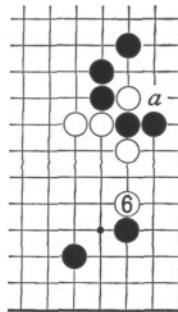
*Answer to problem 2.* White 1 threatens a ladder. Black should answer at 2, letting White take over one of his stones with 3.

## Using Dead Stones.

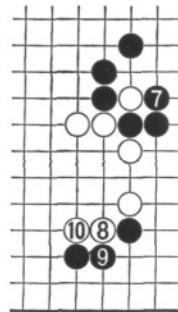
*Dia. 1.* When Black pushes through with 1 and cuts with 3, the stone marked  $\Downarrow$  is captured, so the question becomes how White can make use of it to gain momentum on the outside. The atari at 4 is generally the right way to start.



*Dia. 1*



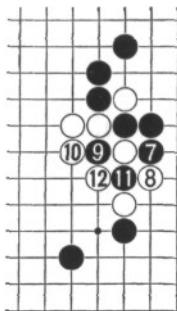
*Dia. 2*



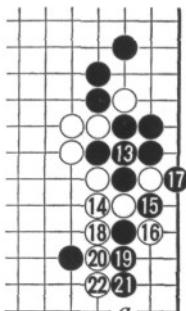
*Dia. 3*

*Dia. 2.* And in this case White 6, an attachment tesuji that threatens  $a$ , is the right way to continue.

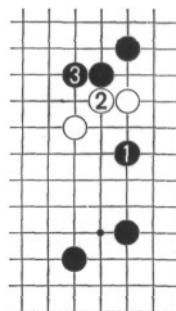
*Dia. 3.* If Black grips the white stone with 7, as he should, White can develop with 8 and 10.



Dia. 4



Dia. 5



Dia. 6

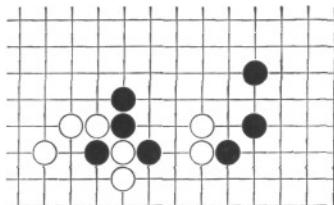
Dia. 4. If Black tries to offer resistance with 7 and 9, he will just get into trouble. White's counter-atari at 10 is a squeeze tesuji.

Dia. 5. Continuing, White drives right through Black's corner enclosure. Black keeps very little corner territory, since White has *a*.

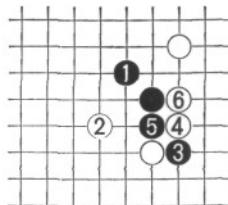
Dia. 6. To go back to the beginning, Black 1 and 3 in Dia. 1 did not turn out very well. This diagram shows a better idea.

*Problem 1.* Black to play. He can eliminate all his weaknesses on the lower side and in the corner.

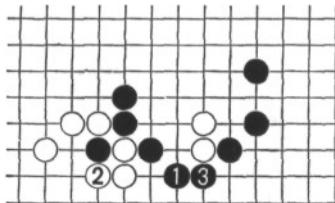
*Problem 2.* A joseki. How should Black use the dead stone 3?



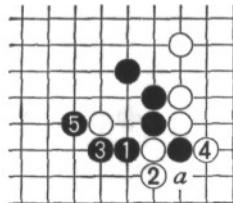
Problem 1



Problem 2



*Ans. to Prob. 1*

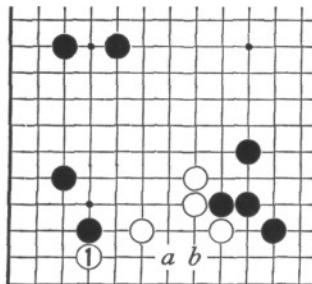


*Ans. to Prob. 2*

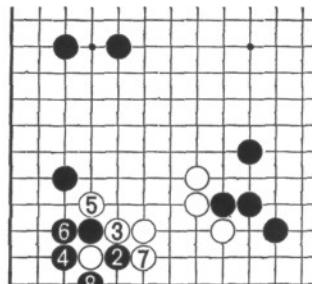
*Answer to problem 1.* Black 1 threatens Black 2. After this sequence, White may as well forget about the two stones above 3.

*Answer to problem 2.* Black 3 threatens *a*. White kills a black stone in the corner, and Black kills a white stone on the outside.

### Hitting Under and Hitting on Top.



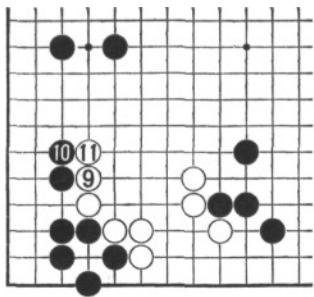
*Dia. 1*



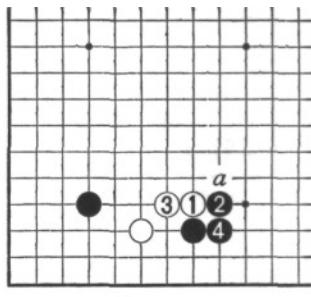
*Dia. 2*

*Dia. 1.* White's four stones in this diagram have become insecure—Black could play *a* or *b* with impunity—and before anything serious starts to happen to them, White should strengthen their shape. White 1, hitting under the opposing black stone, is a sacrifice tesuji, (another attachment tesuji), for doing that.

*Dia. 2.* While Black is busy capturing the sacrifice stone White is reinforcing his position in sente. White 7 defends the lower edge, and 3 and 5 are valuable, too.



Dia. 3



Dia. 4

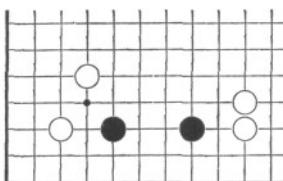
This sequence has its variations: Black might consider omitting 8 to take sente; in some circumstances, (not here), he can crawl forward with 4 at 7; and in some other circumstances he has to play 2 at 4 or 6, in which case White's tesuji is no longer a sacrifice.

*Dia. 3.* At any rate, to continue from Dia. 2, White has not only developed at the edge, he has paved the way for 9 and 11, which reduce Black's territory and make shape in the center.

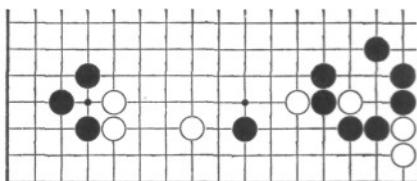
*Dia. 4.* White 1, hitting on top of the opposing black stone, is a similar tesuji, although it aims mostly at helping White into the center. The common variations here are Black 2 at 4 and Black 4 at *a*.

*Problem 1.* Black to play and strengthen his group. Can you see what White's response will be?

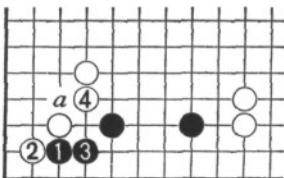
*Problem 2.* White to play and strengthen his group. Should he hit under, or hit on top?



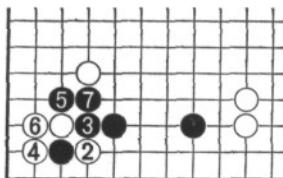
Problem 1



Problem 2



*Ans. to Prob. 1*

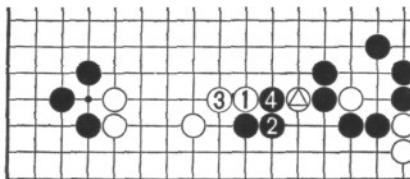


*Dia. 1a*

*Answer to problem 1.* White has to give in at 2, and if he does not also defend at 4, there is Black *a*. Black has gained both territory and eye space.

*Dia. 1a.* White cannot play this way, except in very special circumstances where he thinks he can kill the black group.

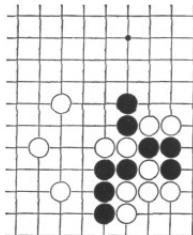
*Answer to problem 2.* White 1 works well with the stone marked ©, and Black has to play 2 as shown. Besides strengthening himself, White is reducing Black's territory in sente.



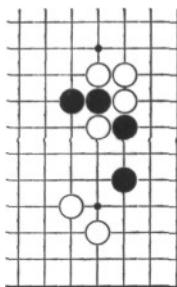
*Ans. to Prob. 2*

## More Problems

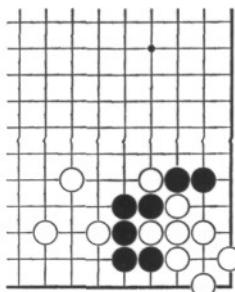
In each of these problems the object is to make shape. Some of them, like numbers 4 and 5, are extremely simple. In number 6 White is to make shape in the center, and in number 7 he is to make shape on the right side. If you find any ladders in number 9, assume they work.



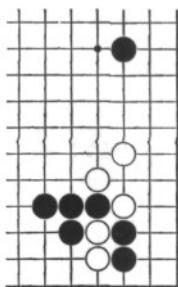
*1. Black to play*



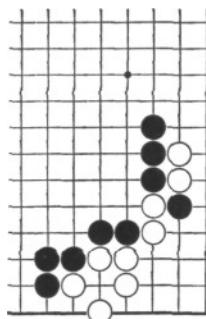
2. *Black to play*



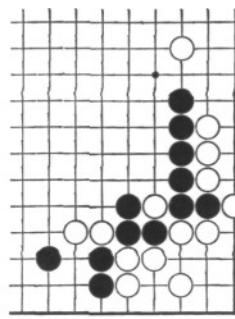
3. *Black to play*



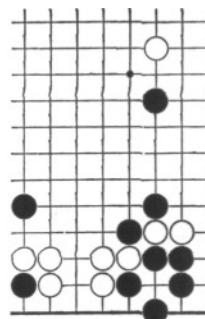
4. *White to play*



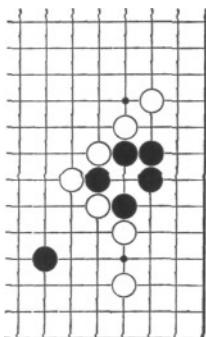
5. *Black to play*



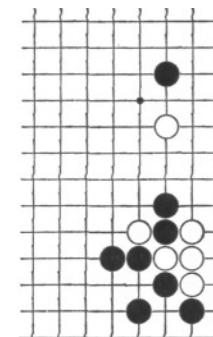
6. *White to play*



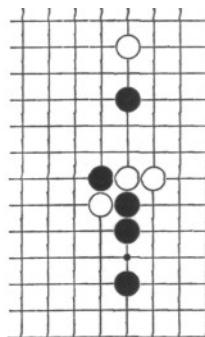
7. *White to play*



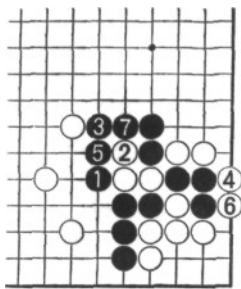
8. *Black to play*



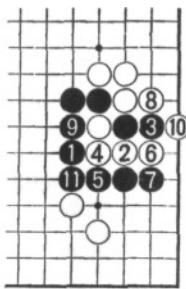
9. *White to play*



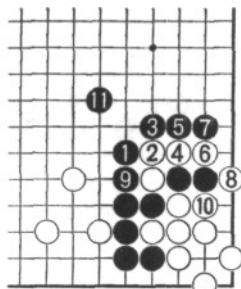
10. *White to play*



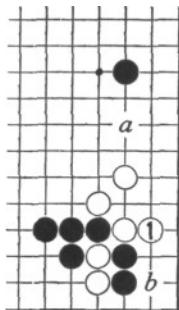
Ans. to Prob. 1



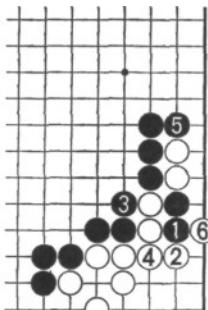
Ans. to Prob. 2



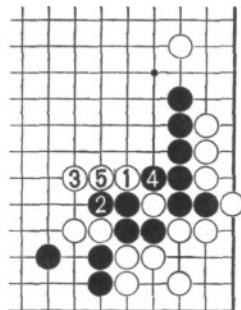
Ans. to Prob. 3



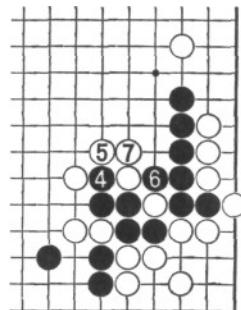
Ans. to Prob. 4  
a and b are miai



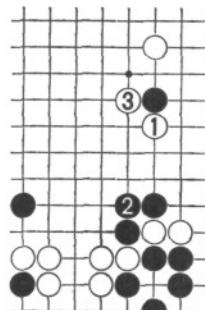
Ans. to Prob. 5



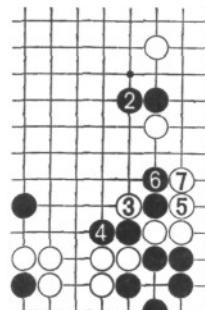
Ans. to Prob. 6



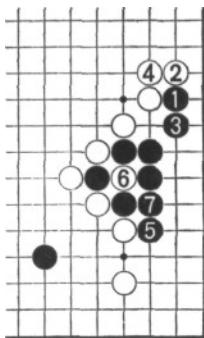
Variation



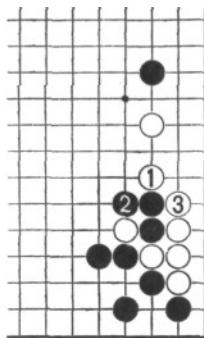
Ans. to Prob. 7



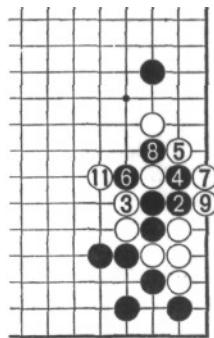
Failure for Black



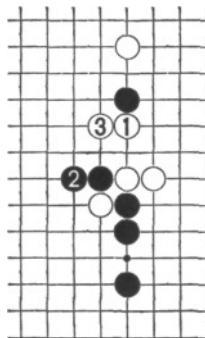
Ans. to Prob. 8



Ans. to Prob. 9



Black 2 fails  
⑩ connects



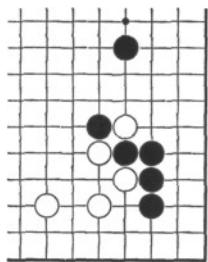
Ans. to Prob. 10

## 14. IGNORE THE ATARI

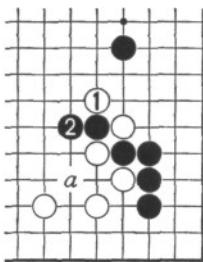
Some go players' reading seems to be dominated by the idea of atari; they give it whenever they can and draw out of it whenever they find themselves in it. They are always getting side-tracked by the fates if individual stones and missing tesuji.

### When Not to Give Atari.

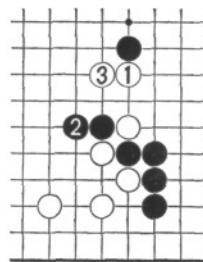
*Dia. 1.* White to play; what should he do in this shape? He has two standard moves, one for offense and one for defense, and neither of them is an atari.



*Dia. 1*



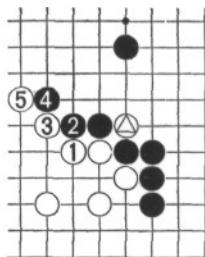
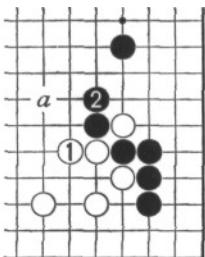
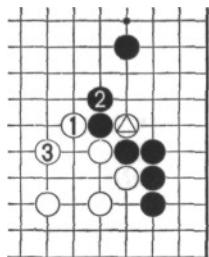
*Dia. 2*



*Dia. 3*

*Dia. 2.* If White is well enough supported in the surrounding area, he can attack. To do so with 1, however, betrays clumsiness. White 1 does not help his cause very much, and 2 helps Black's cause by quite a bit. Black *a* is starting to look interesting.

*Dia. 3.* The correct play is this attachment tesuji, which threatens the driving tesuji. Now if Black plays 2, White has a strong move of his own at 3.



*Dia. 4.* Perhaps defense, not attack, is White's aim; to give atari with 1 is still clumsy. Black 2 is the last move he should want to provoke, since it kills off the stone marked  $\Downarrow$ . Furthermore, White has to go back and connect at 3, ending in gote.

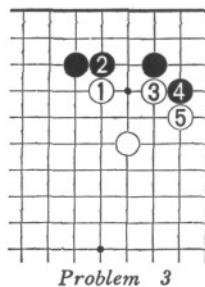
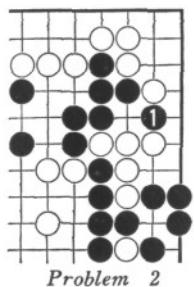
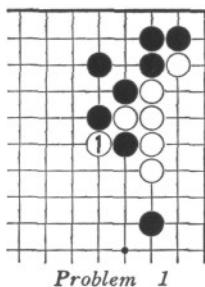
*Dia. 5.* White 1 is correct. Now if Black plays 2, White has sente to take the initiative elsewhere, or if he wants to continue in this area, he can play 3 at *a*—compare that with the previous diagram. If Black ignores White 1, White has a ladder at 2.

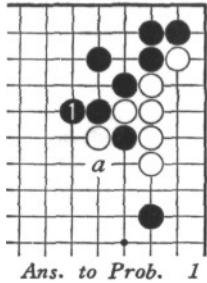
*Dia. 6.* If Black presses out with 2, White can press him back with a double hane, putting  $\Downarrow$  to work.

*Problem 1.* Black to answer White 1.

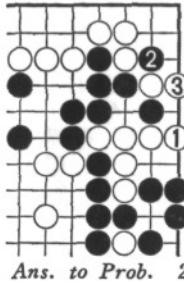
*Problem 2.* White to answer Black 1. Beware of the Greeks bearing gifts.

*Problem 3.* A joseki: Black to answer White 5.

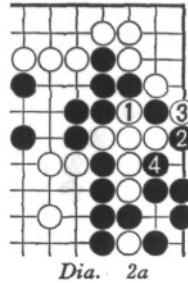




*Ans. to Prob. 1*



*Ans. to Prob. 2*



*Dia. 2a*

*Answer to problem 1.* Black 1 is correct. Next Black threatens *a*.

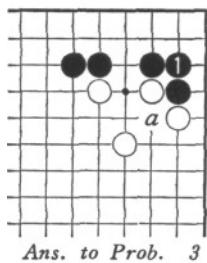
*Answer to problem 2.* With 1, White is safe.

*Dia. 2a.* This White 1, or White 1 at 3, lets Black make a ko.

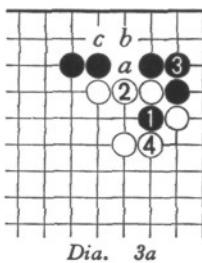
*Answer to problem 3.* Black must connect at 1. Later, he can cut at *a* if he wishes.

*Dia. 3a.* To cut at 1 immediately is only to help White get eyes, and after 4, the threat of White *a*, Black *b*, White *c* continues to be a nuisance to Black.

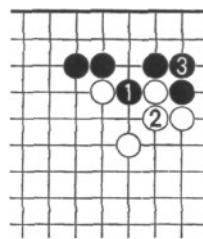
*Dia. 3b.* This atari also helps White to make shape. Since Black has to connect at 3 anyway, there is no point in his strengthening White with the 1-2 exchange.



*Ans. to Prob. 3*



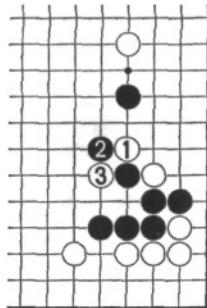
*Dia. 3a*



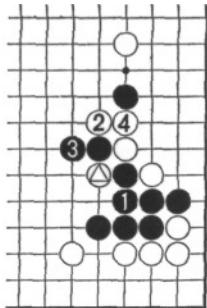
*Dia. 3b*

## The Counter-Atari Tesuji.

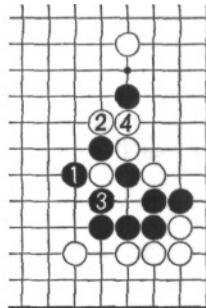
*Dia. 1.* White 1 is a common move for starting trouble on the right side. Black 2 is a good answer, but now Black faces the atari at 3. Should he draw out if it?



Dia. 1



Dia. 2



Dia. 3

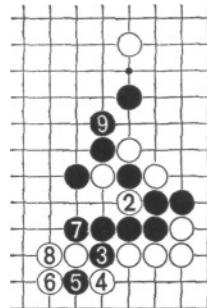
*Dia. 2.* No, for after the obvious moves at 2 and 4 White has good shape, Black has bad, and White ↓ is still going to be a thorn in Black's side.

*Dia. 3.* Black's tesuji is the counter-atari at 1. White will probably play 2 and 4 just as he did before, and now Black has excellent shape.

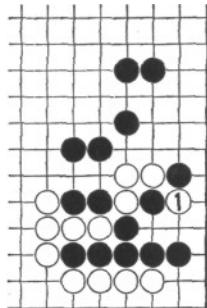
*Dia. 4.* If White captures at 2, Black can play 3 to 9 and trap the whole enemy group.

*Problem 1.* Black to answer White 1.

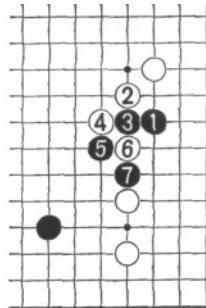
*Problem 2.* Black 1 to 7 are a standard invading sequence. What should White's next two moves be?



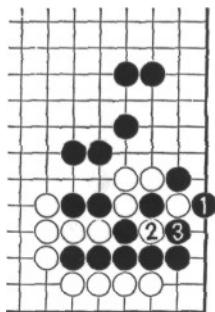
Dia. 4



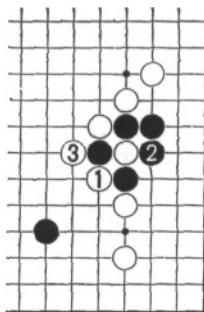
Problem 1



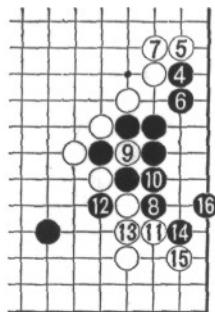
Problem 2



*Ans. to Prob. 1*



*Ans. to Prob. 2*



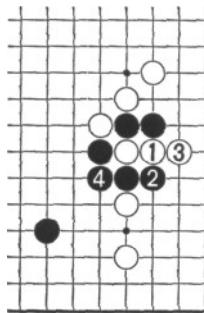
*Dia. 2a*

*Answer to problem 1.* Black must not play 1 at 3, or White 2 at 1 will cause a ko.

*Answer to problem 2.* White 1 and 3 hold Black in.

*Dia. 2a.* Continuing from the last diagram, Black can live with 4 to 16—that much he is entitled to—but White gets a strong outer wall in return, a fair trade.

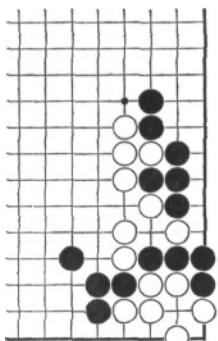
*Dia. 2b.* If White draws out of atari, he can save the side, but this corner will be in sad shape.



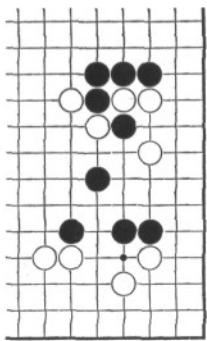
*Dia. 2b*

## More Problems.

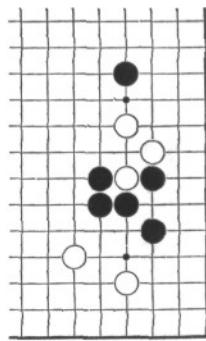
These problems feature both attack and defense, the unifying idea being to resist the temptation to give or draw out of atari.



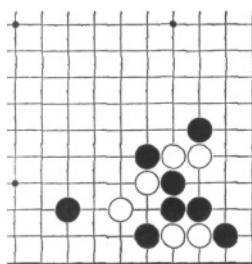
1. *Black to play*



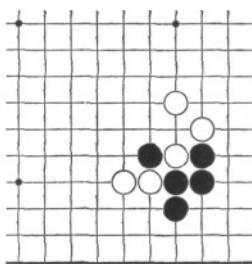
2. *White to play*



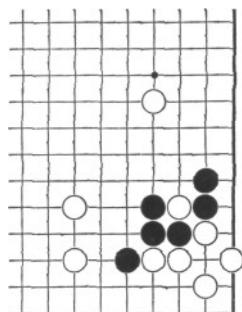
3. *White to play*



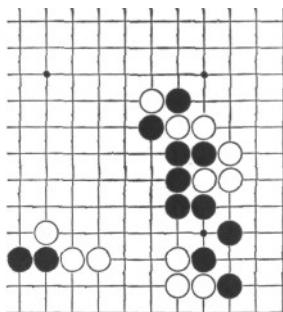
4. *White to play*



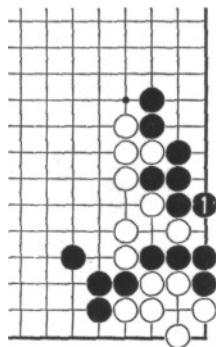
5. *White to play*



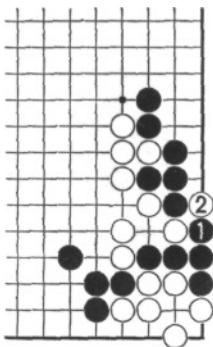
6. *White to play*



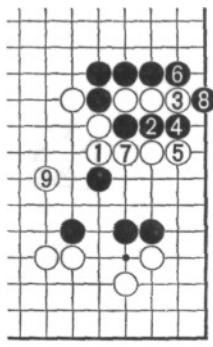
7. *White to play*



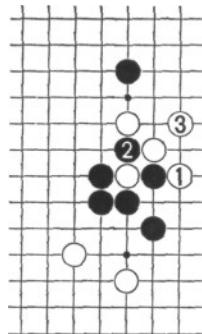
Ans. to Prob. 1



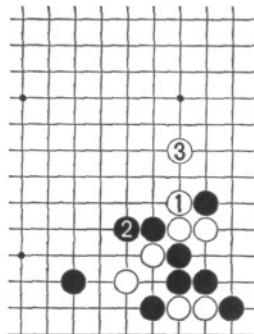
Failure



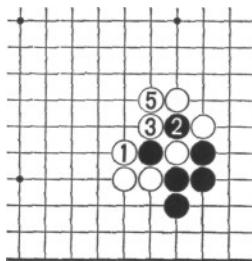
Ans. to Prob. 2



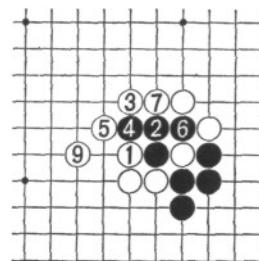
Ans. to Prob. 3



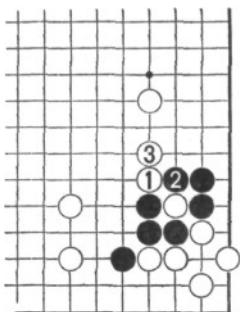
Ans. to Prob. 4



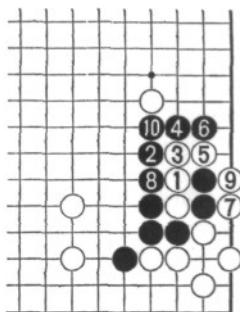
Ans. to Prob. 5  
④ connects



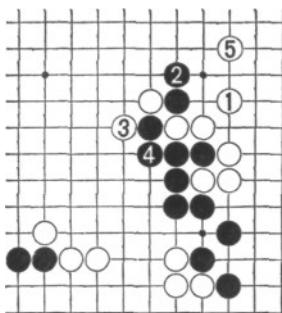
Variation  
⑧ connects



*Ans. to Prob. 6*



*Failure*

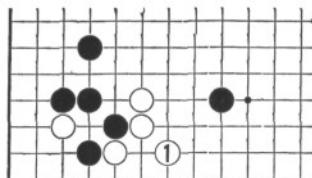


*Ans. to Prob. 7*

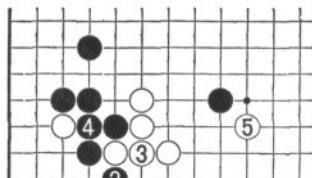
## 15. DOUBLE-THREAT TESUJI

A double-threat tesuji works by aiming at following moves in two directions.

*Dia. 1.* White 1 is a good example. The move itself does not look like much, but it prepares for a large following move either in the corner or out to the right, and Black cannot defend both places.



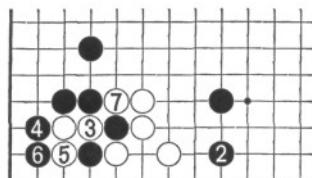
*Dia. 1*



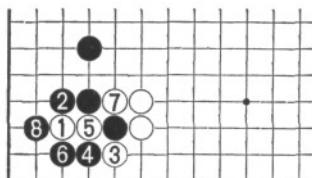
*Dia. 2*

*Dia. 2.* If he defends the corner, White can spring out to 5. Black cannot break the link between the white stones.

*Dia. 3.* If Black stops the extension to the right, White can get profit and eye shape in the corner.



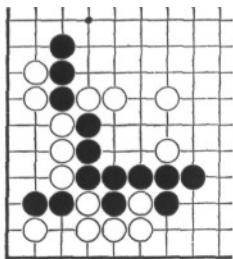
*Dia. 3*



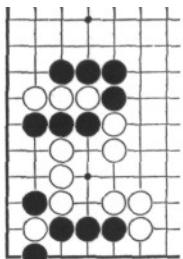
*Dia. 4*

*Dia. 4.* The position arises midway through this joseki. It is often correct for White to stop after Black 4, instead of continuing with 5 and 7, so as to leave himself the possibility of the above.

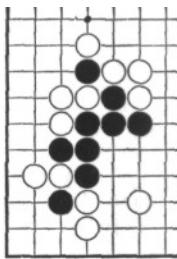
The nine problems of this chapter feature hane, belly, diagonal, and other moves, but each is a double-threat tesuji.



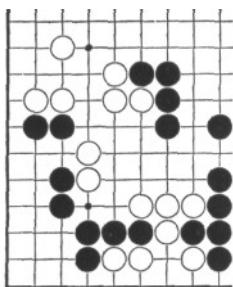
### *1. Black to play*



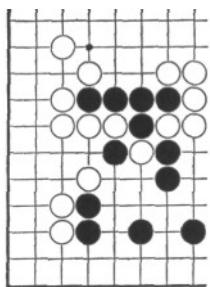
2. *White to play*



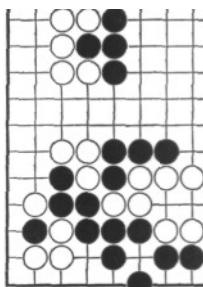
### 3. Black to play



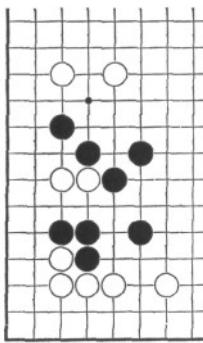
#### 4. Black to play



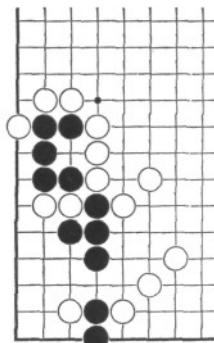
5. White to play



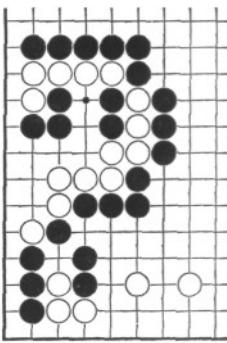
*6. Black to play*



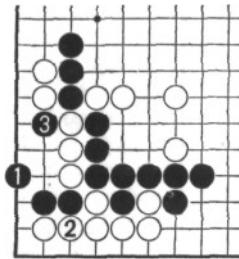
7. White to play



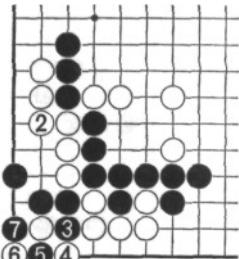
8. *White to play*



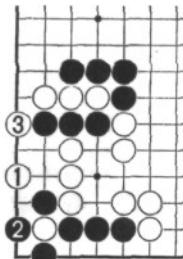
9. White to play



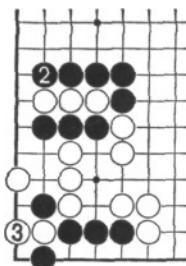
Ans. to Prob. 1



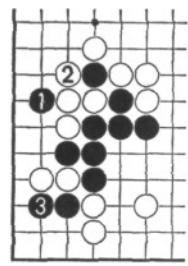
Variation



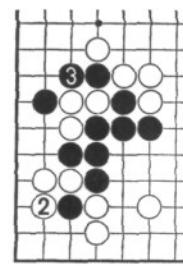
Ans. to Prob. 2



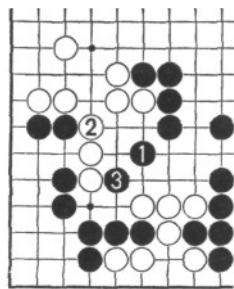
Variation



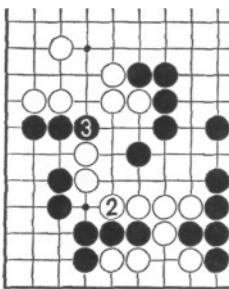
Ans. to Prob. 3



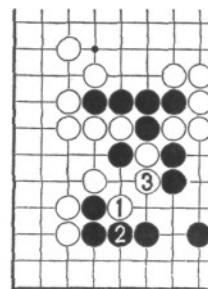
Variation



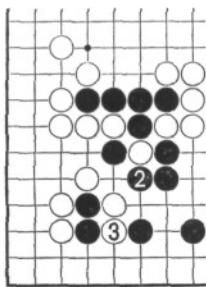
Ans. to Prob. 4



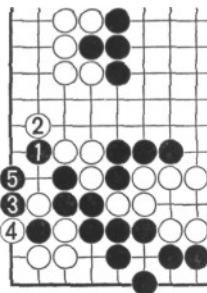
Variation



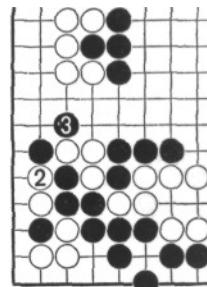
Ans. to Prob. 5



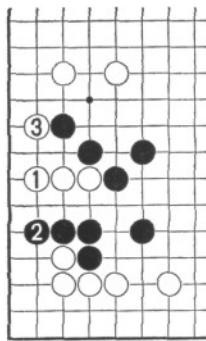
Variation



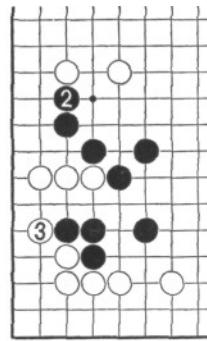
Ans. to Prob. 6



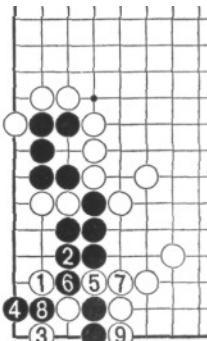
Variation



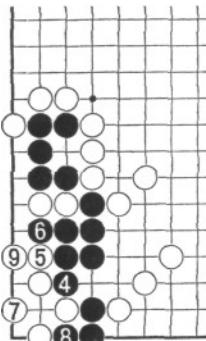
Ans. to Prob. 7



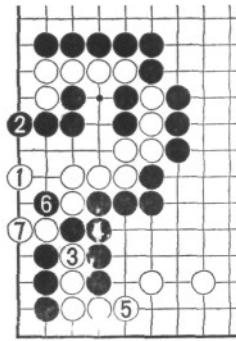
Variation



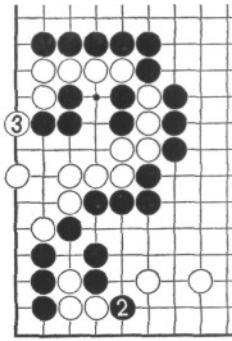
Ans. to Prob. 8



Variation



Ans. to Prob. 9

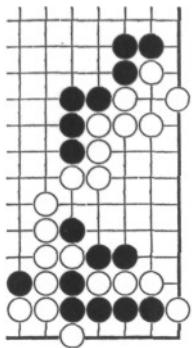


Variation

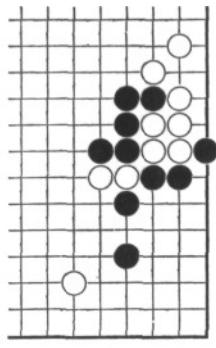
## **16. CHALLENGE PROBLEMS**

Are you tired of solving problems? If you are, then put this book away for awhile and take a well-deserved rest, but when you have recovered your appetite, come back and try this last batch of hard ones.

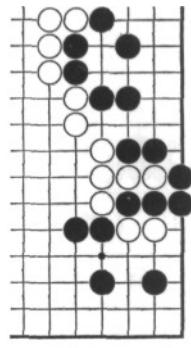
- Problem 1. White to capture at least one black stone,
- Problem 2. Black to capture the cutting stones,
- Problem 3. Black to play on the right side.
- Problem 4. White to kill the corner.
- Problem 5. Black to capture the cutting stones,
- Problem 6. White to capture the cutting stones,
- Problem 7. White to capture the cutting stones,
- Problem 8. Black to capture the cutting stones.
- Problem 9. Black to rescue his six stones,
- Problem 10. Black to live,
- Problem 11. Black to capture the cutting stones.



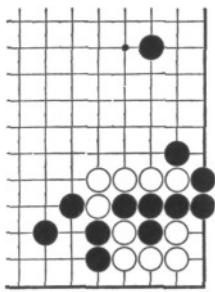
**4. White to play**



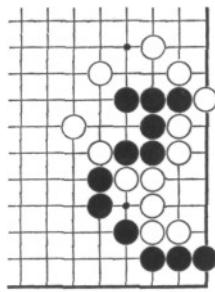
### *5. Black to play*



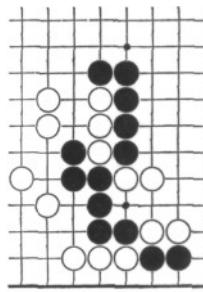
*6. White to play*



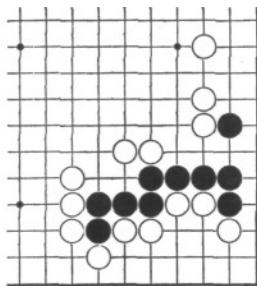
7. *White to play*



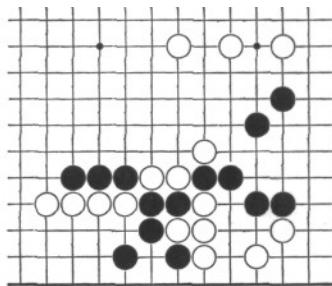
8. *Black to play*



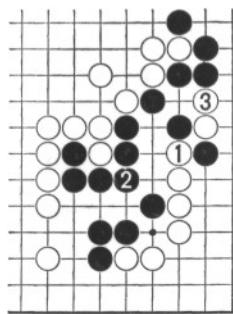
*9. Black to play*



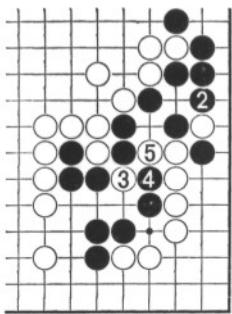
*10. Black to play*



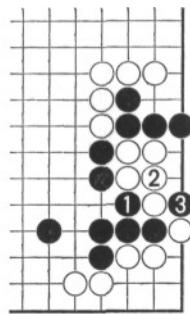
**11. Black to play**



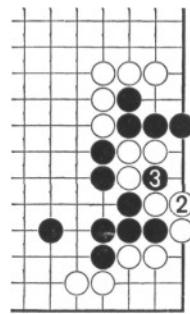
Ans. to Prob. 1



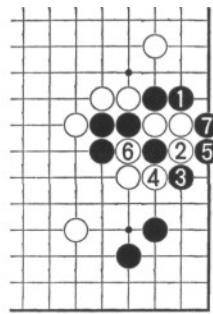
Variation



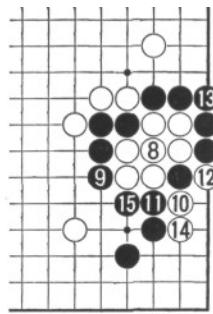
Ans. to Prob. 2



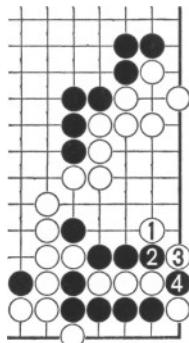
Variation



Ans. to Prob. 3

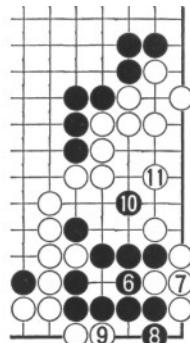


Continuation

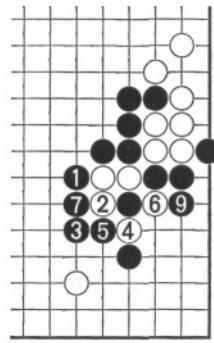


Ans. to Prob. 4

⑤ recaptures

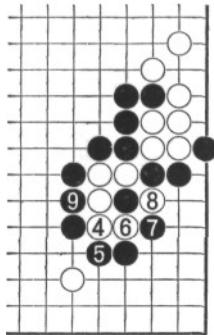


Continuation

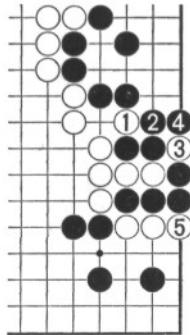


Ans. to Prob. 5

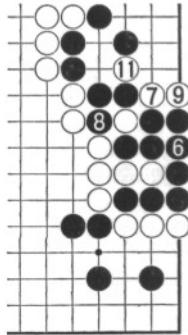
⑧ connects



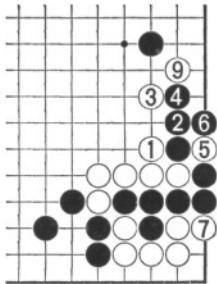
Variation



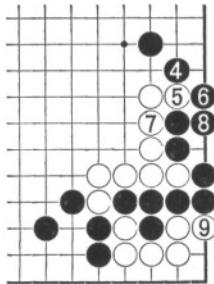
Ans. to Prob. 6



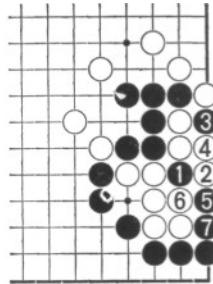
Continuation  
⑩ connects



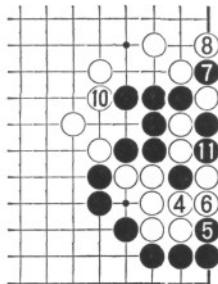
Ans. to Prob. 7  
⑧ connects



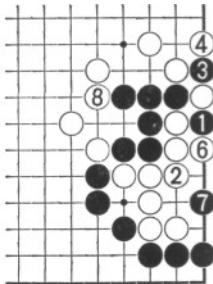
Variation



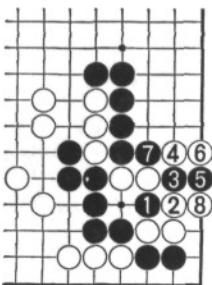
Ans. to Prob. 8



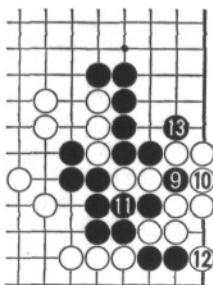
Variation  
⑨ connects



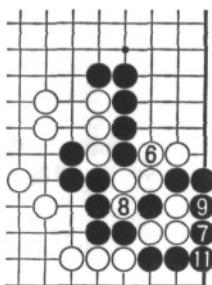
Failure  
⑤ connects



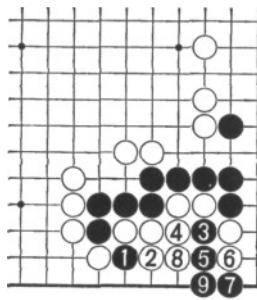
*Ans. to Prob. 9*



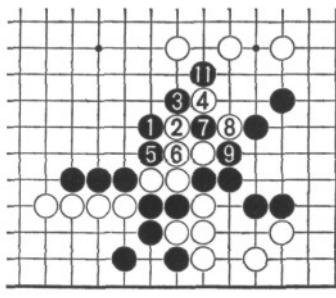
*Continuation*



*Variation*  
⑩ connects



*Ans. to Prob. 10*



*Ans. to Prob. 11*  
⑩ connects

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