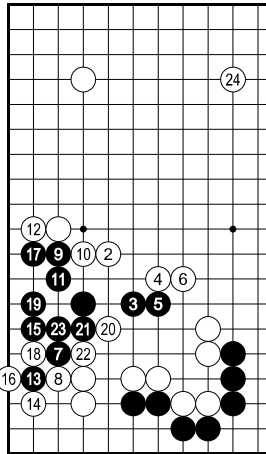
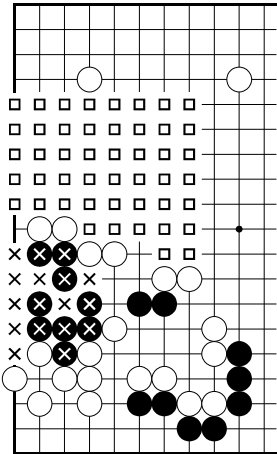


Example 2: bad approach



Dia. 2.1: small life

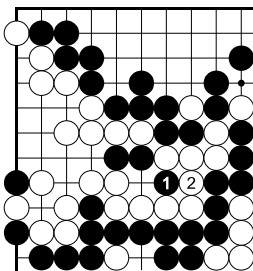


Dia. 2.2: result

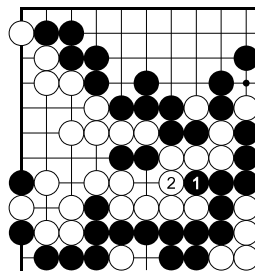
Example 2: Move 1 is meant to be a reduction. However, the stone is not connected to a friendly group, approaches the strong white wall too closely and enters the white sphere of influence too deeply.

Dia. 2.1: White need not kill the black group. It suffices to confine it and let it become a small invasion group. White converts his initial wall into a new great wall on the outside constructing a huge moyo.

Dia. 2.2: Black has taken away the small region marked with crosses while White constructs the much larger moyo denoted with squares. White gains more than Black erases.



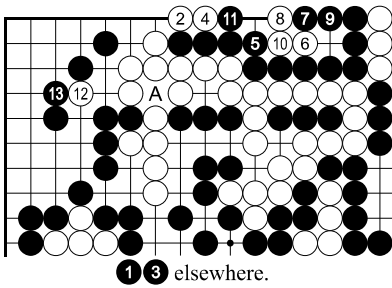
Example 3: bad ko threat



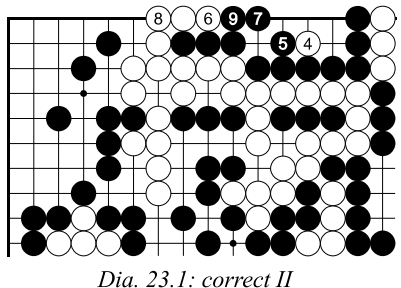
Dia. 3.1: good ko threat

Example 3: Supposing a ko fight elsewhere on the board, move 1 is a loss-making ko threat: the stone 1 is lost.

Dia. 3.1: It is correct to threaten the white group from the outside so that the stone 1 is connected and alive.



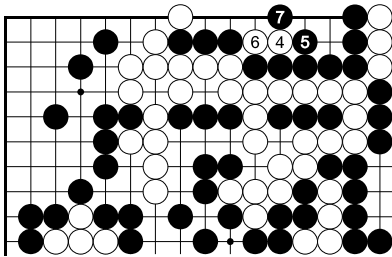
Answer 23: correct I



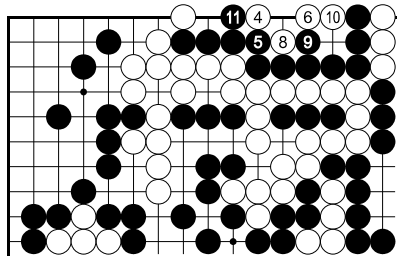
Dia. 23.1: correct II

Answer 23 - Dia. 23.3: Despite Black's plays elsewhere, White cannot revive his big group by killing the upper black group.

Answer 23: A is not an eye. Since Black can approach from the outside, the seki shape involving the upper black group is only a temporary illusion.

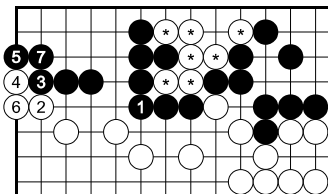


Dia. 23.2: correct III

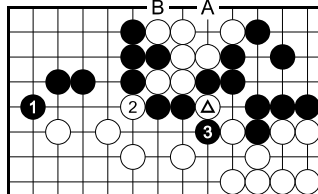


7 elsewhere.

Dia. 23.3: correct IV



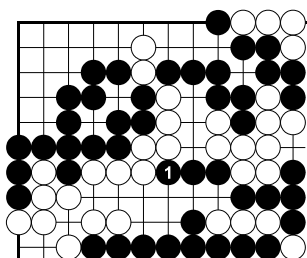
Answer 24: mistake



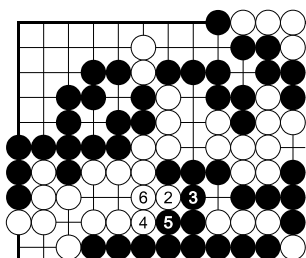
Dia. 24.1: correct

Answer 24: Black 1 is a superfluous reinforcement on the outside. The marked white group has already been dead. White can reduce on the left side.

Dia. 24.1: Black 1 takes the biggest endgame. White 2 does not work because Black 3 connects by capturing the marked stone. White A is refuted by Black B, White B is answered by Black A.

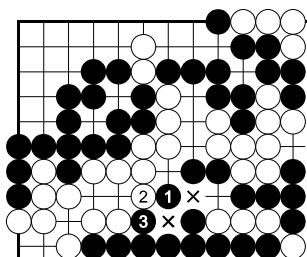


Example 2: premature dame

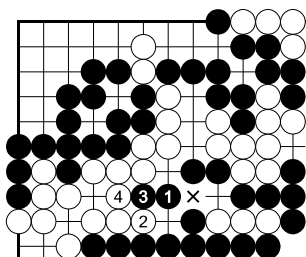


Dia. 2.1: continuation

Example 2 + Dia. 2.1: Black 1 is a mistake as White's continuation lets the stone 1 be a dame. Black does not increase his territory.



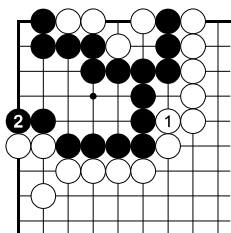
Dia. 2.2: correct



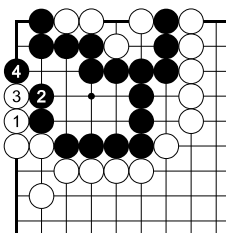
Dia. 2.3: variation

Dia. 2.2: Black 1 is a valuable move with which Black gets the marked new territory intersections.

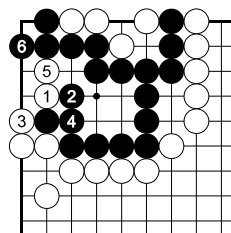
Dia. 2.3: Alternatively, White can restrict Black's number of new territory intersections to one. As a compensation, Black 3 prevents one of White's territory intersections, which White protects in Dia. 2.2.



Example 3:
premature dame



Dia. 3.1: valuable
but inefficient



Dia. 3.2: valuable
and efficient

Example 3: The mistake White 1 takes a dame and allows Black to gain points.

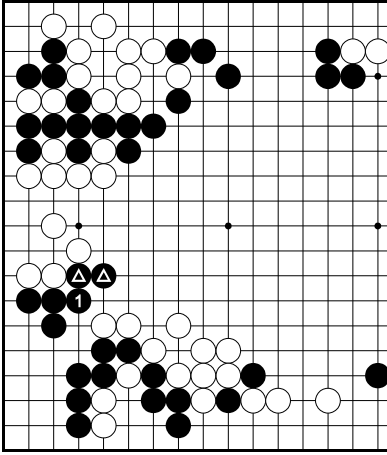
Dia. 3.1: White 1 is an improvement. However, the reduction is inefficient.

Dia. 3.2: This efficient reduction is correct. Black cannot cut with 2 at 3.

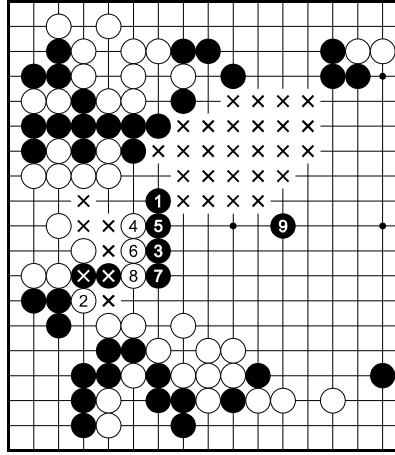
4.6 Connection

Not only cuts, but also connections can be on neutral, or almost neutral, intersections. While one must make necessary connections, unnecessary connections should be avoided.

Avoid connections if more valuable moves are available.



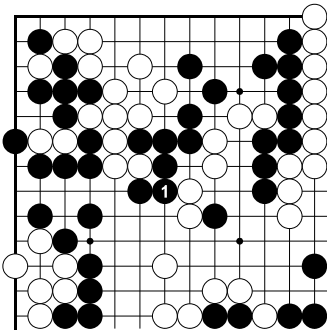
Example 1: bad connection



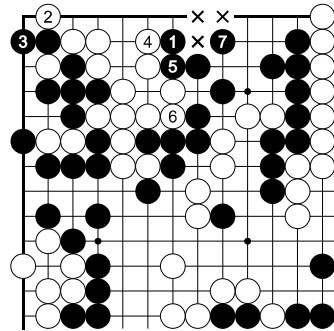
Dia. 1.1: good sacrifice

Example 1: Although Black 1 connects the marked string, it is a bad move because the newly played stone is situated in a neutral region.

Dia. 1.1: Black should sacrifice the marked string, motivate White to defend the life of his left group by accepting the sacrifice and build an impressive moyo. Black's marked new region is much bigger than White's additional territory intersections. The result is a great success for Black.



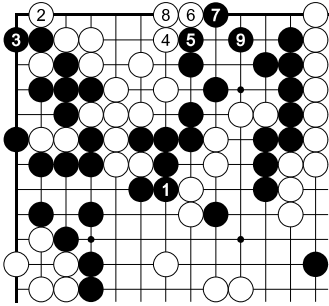
Example 2: bad connection



Dia. 2.1: correct

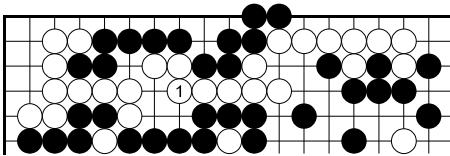
Example 2: This kind of connection should be played only as the last resort because it occupies a neutral intersection.

Dia. 2.1: With good strategy, Black plays sente moves against the upper left white group before using move 7 to defend the life and shape of the black group. Thus, Black gets the marked three new territory intersections.



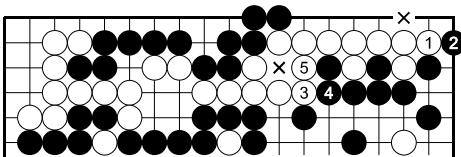
Dia. 2.2: White's success

Dia. 2.2: The valueless move 1 allows White to settle the upper side in his favour, increase the white territory and restrict the black territory there.



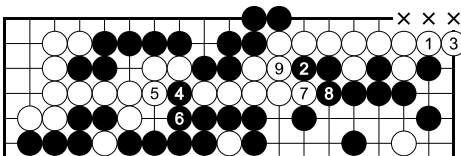
Example 3: bad connection

Example 3: White does not make any noteworthy new points by connecting on a neutral intersection.



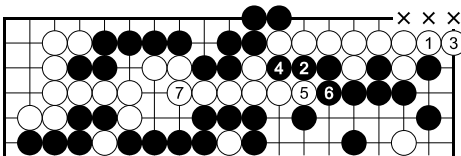
Dia. 3.1: correct

Dia. 3.1: This variation is correct for both players. White makes the marked two new points of territory. His group lives.



Dia. 3.2: correct for White

Dia. 3.2: The mistake Black 2 allows White to increase his territory by the marked three intersections.



Dia. 3.3: correct for White

Dia. 3.3: Also in this variation, Black achieves nothing. Despite cutting the white groups, he cannot kill any of the strings.

6 Taking More Than the Opponent

In the previous chapters, we have learnt to avoid losing points, neutral intersections and premature endgames. Now, we are ready to learn positive strategy. Do not let your opponent make more new points than you make and do not let your opponent's endgame be better than yours. Instead, apply the following principle to ordinary sequences, boundaries during the middle game or mutual reductions:

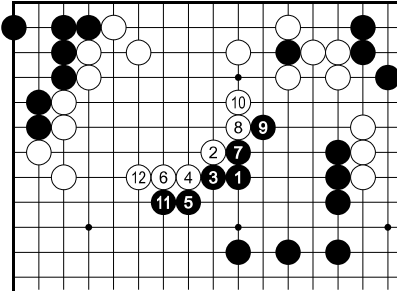
Take at least as many new points as the opponent.

If the opponent makes mistakes, take the greater number of new points of territory. If both players play correctly, they take about the same numbers of new points. The principle applies literally if only the territory balance changes. It is applied only as a guideline to be used should the influence balance, weaknesses, strategic options or other aspects change. For example, one can trade territory for influence, which is potential for future territory. A player having invested a lot in influence needs to catch up on territory and, later during the game, make more new points of territory than the opponent. However, during the endgame phase, mainly the territory balance is at stake.

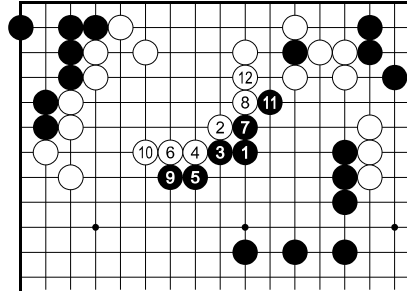
It cannot be said often enough that eventually a game of go is won by the player with the greater amount of territory. Therefore, the principle above is at the core of good strategy. Nevertheless, many beginner mistakes demonstrate ignorance of the principle. Know and apply the principle in order to improve!

One must not confuse previously existing territory with new territory. Regardless of the previous territory balance, the principle considers the players' new increments of territory. As a practical side effect for applying the principle, it can often suffice to compare the points gained on only the new territory intersections.

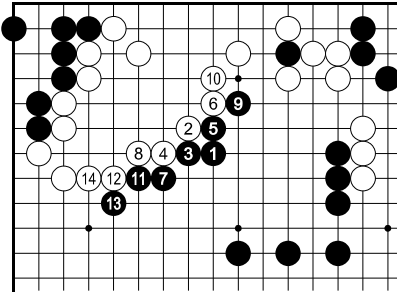
Instead of taking at least as many new points as the opponent, a player can also eliminate at least as many points from the opponent's old territories as the opponent eliminates from the player's old territories. A player's taking of new territory and the opponent's elimination of the player's old territory can be combined.



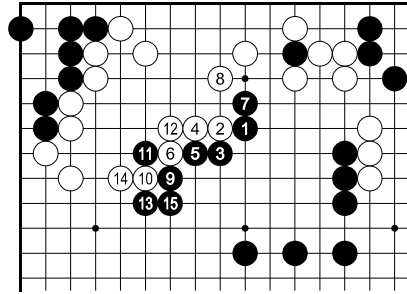
Example 1: suboptimal I



Dia. 1.1: suboptimal II



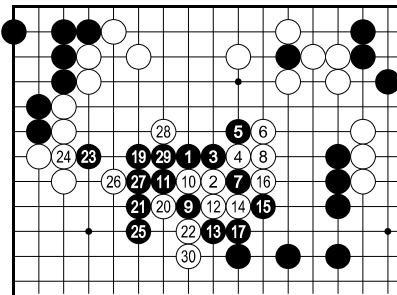
Dia. 1.2: fair I



Dia. 1.3: fair II

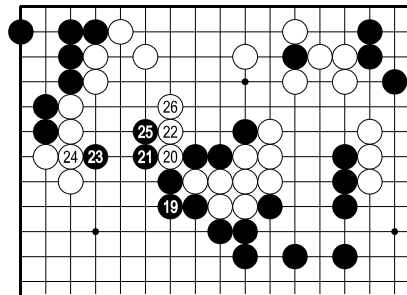
Dia. 1.2: With a peaceful construction of a wall, this variation is reasonably fair.

Dia. 1.3: Black can consider this alternative to *Dia. 1.2* but he ends in gote.



(18) at 7.

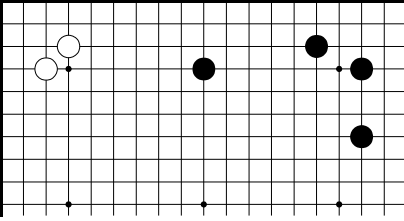
Dia. 1.4: fight I



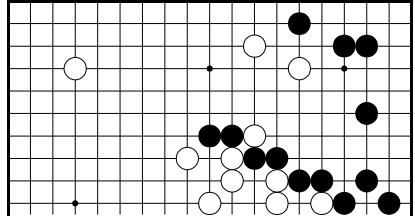
Dia. 1.5: fight II

Dia. 1.4: If Black tries to bend the balance too much in his favour, then White must counter-attack. A fight evolves. Black prevents an expansion of the white region and pays with the weakness of the black reduction group.

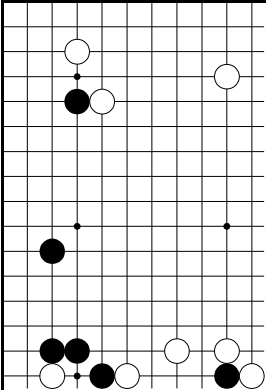
Dia. 1.5: In this compromise, Black allows White to make a few points, which Black plans to compensate by profiting from his wall in the center.



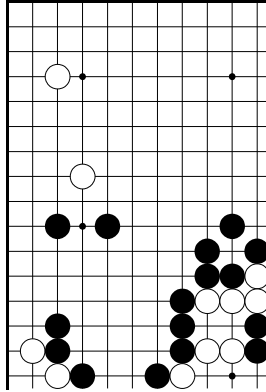
Problem 5: White to move



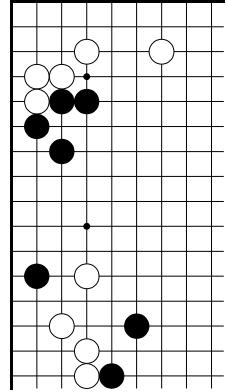
Problem 6: Black to move



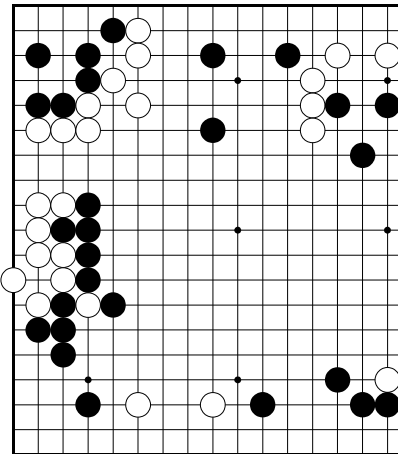
Problem 7: Black to move



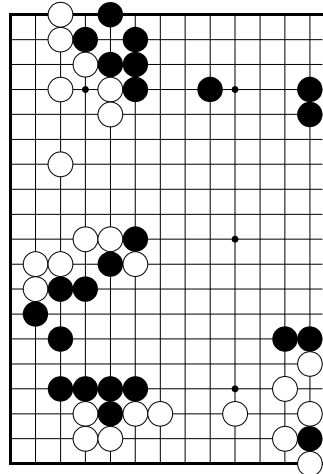
Problem 8: Black to move



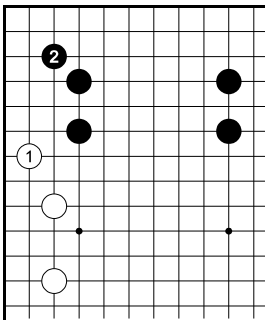
Problem 9:
White to move



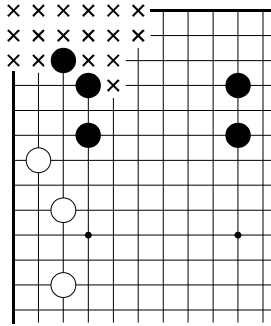
Problem 10: White to move



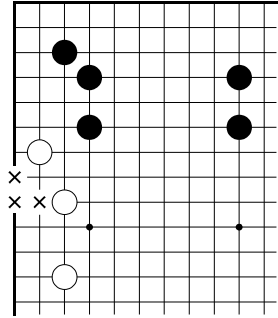
Problem 11: White to move



Example 4: move I



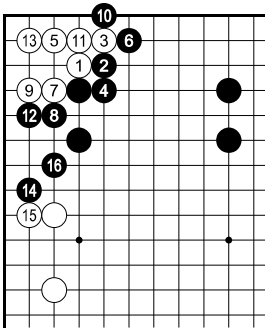
Dia. 4.1: new black territory I



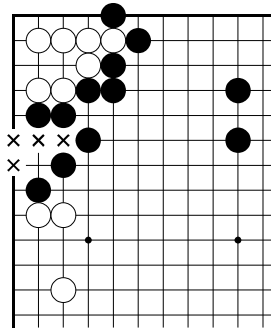
Dia. 4.2: new white territory I

Example 4: In the position before the sequence, the question arises whether White should reduce or invade. Example 4 studies a sample reduction sequence while Dia. 4.3 studies a sample invasion sequence. The sequences' first moves shall be compared by studying the new territories occurring in the resulting positions.

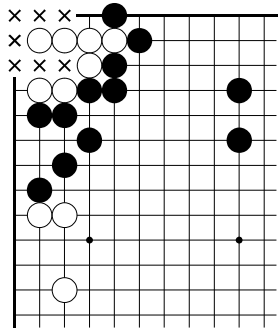
Dia. 4.1 + 4.2: In the position resulting from the sequence in Example 4, Black's and White's new territories are assessed as those intersections where the players do not get new territory in the position created in Dia. 4.3. It suffices to make rough judgements: Black makes many new points while White makes only a few new points. Therefore, the resulting position favours Black.



Dia. 4.3: move II

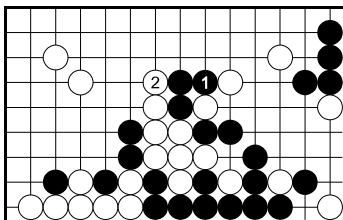


Dia. 4.4: new black territory II

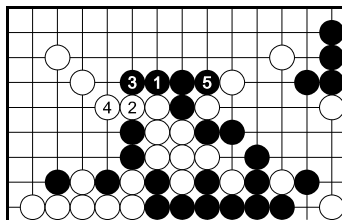


Dia. 4.5: new white territory II

Dia. 4.3: White 1 is the best invasion and studied as our second candidate move. The moves to 13 constitute an established standard sequence. Black 2 is chosen because it is better for Black to confine the white group to the corner than to let it live in the middle of the black region. In an actual game, moves 14 to 16 would be played only later, but here we can be pragmatic when studying Black's maximal local increment of new territory.

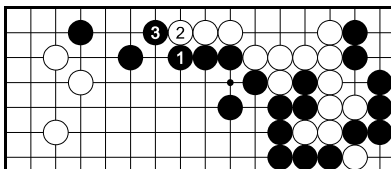


Example 2: no forcing

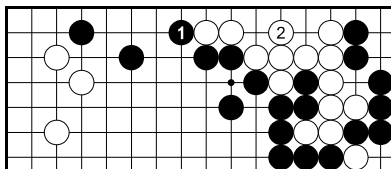


Dia. 2.1: forcing

Dia. 2.1: Black 1 and 3 are *forcing* moves, which White must answer. They greatly assist Black 5.



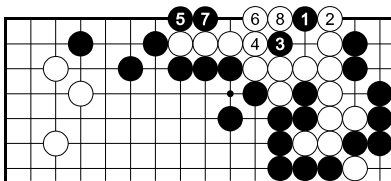
Example 3: gote block



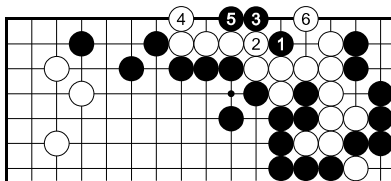
Dia. 3.1: sente block

Example 3: Black makes the wrong choice of *blocking* the upper white territory in gote. As Dia. 3.2 + 3.3 show, the white group is alive.

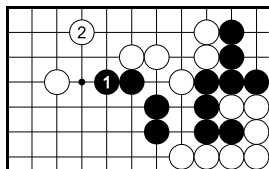
Dia. 3.1: This correct block is Black's sente.



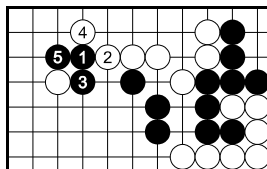
Dia. 3.2: life I



Dia. 3.3: life II



Example 4: mistake



Dia. 4.1: correct

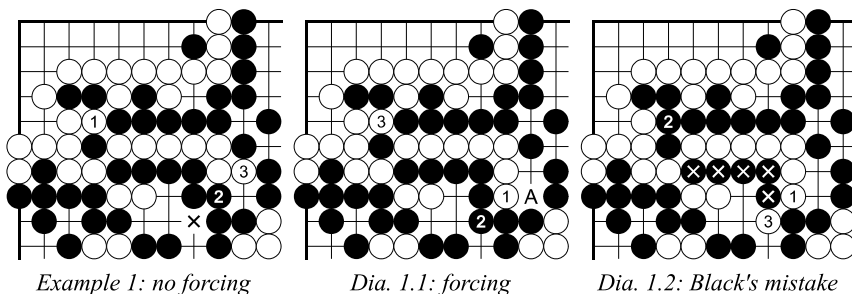
Example 4: Black just helps White to connect and make a lot of territory.

Dia. 4.1: Black 1 starts a *fight*. White cannot resist the splitting attack. Black successfully restricts the white territory and separates an important white stone.

8.8 Forcing

If forcing moves are available, they can often be used to improve a basic local sequence and its endgame value. Forcing moves must be played with good timing. If played too early, the player might waste better alternatives or the opponent might ignore the forcing moves and play elsewhere; if played too late, the opponent might *prevent* the forcing moves' potential so that it is not used at all.

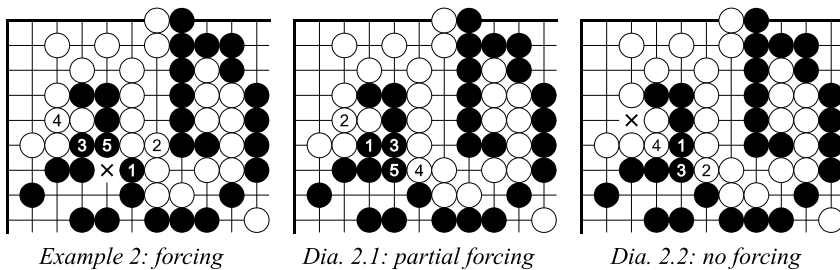
Use advantageous forcing moves with good timing.



Example 1: White plays the basic endgame move 1 without considering forcing moves. This allows Black to gain the marked extra point in sente.

Dia. 1.1: White makes the forcing exchange White 1 for Black 2 before connecting. White 1 - A - 3 - 2 is an alternative.

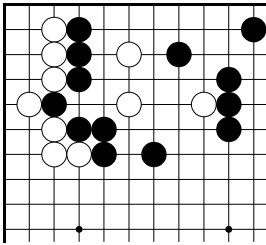
Dia. 1.2: If Black tries to cut, his own marked string is captured.



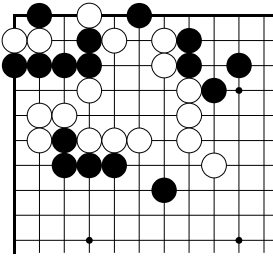
Example 2: Black plays the forcing moves 1 and 3 before connecting with 5. Thereby, he protects the marked additional territory intersection. Black 1 forces because it creates a bigger threat than the value of White 2 played at 5.

Dia. 2.1: Black plays only the one forcing move 1. As a consequence, he loses the point marked in *Example 2*.

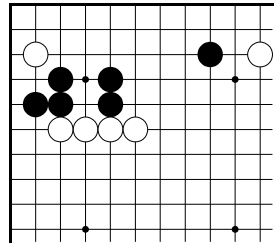
Dia. 2.2: Without any black forcing move, White gains the marked extra point.



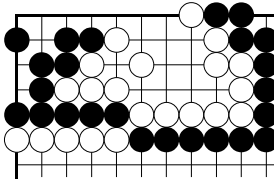
Problem 37: Black to move



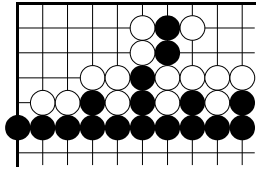
Problem 38: White to move



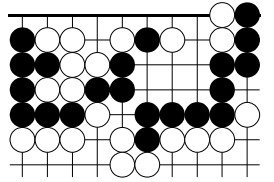
Problem 39: White to move



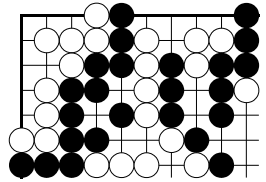
Problem 40: White to move



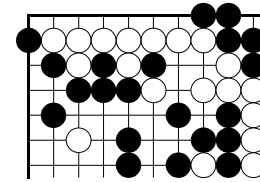
Problem 41: White to move



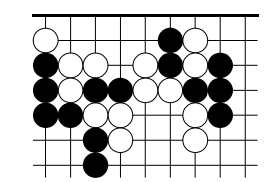
Problem 42: Black to move



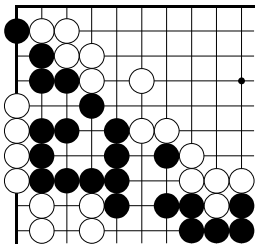
Problem 43: White to move



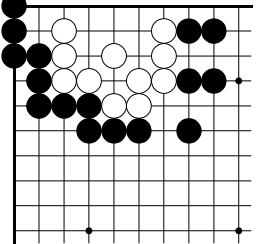
Problem 44: Black to move



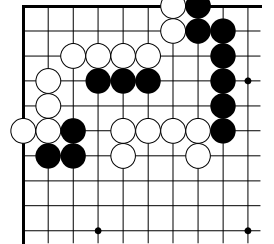
Problem 45: Black to move



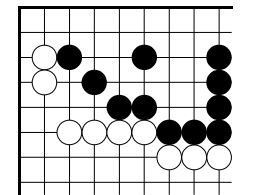
Problem 46: White to move



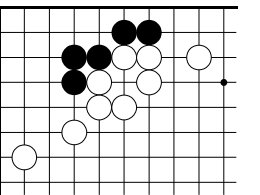
Problem 47: Black to move



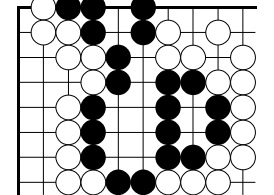
Problem 48: White to move



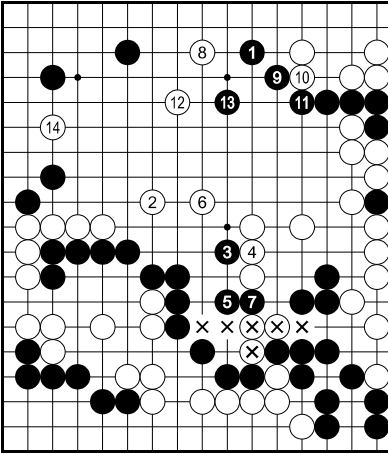
Problem 49: Black to move



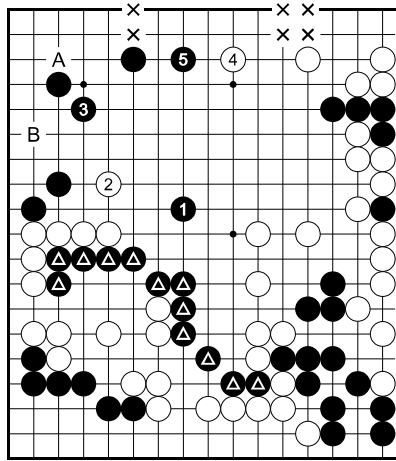
Problem 50: White to move



Problem 51: White to move



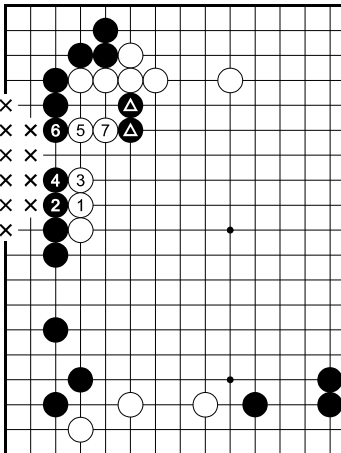
Example 4: failure



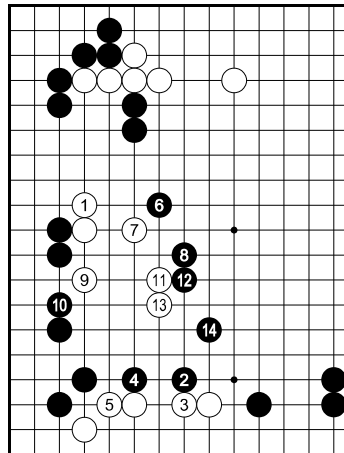
Dia. 4.1: correct

Example 4: White punishes the mistake 1 gently, lets Black make the marked few new points and seizes the initiative in the upper left quarter.

Dia. 4.1: Black 1 must defend his marked unstable group. Black 3 and 5 defend both the corner territory and the group indirectly from a distance. The marked new territory intersections are less interesting than Black's reinforcement of his territory in the upper left corner. White cannot invade at A or B.



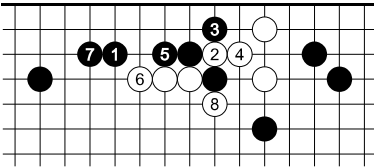
Example 5: failure



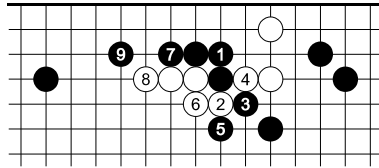
Dia. 5.1: correct

Example 5: Black's strategy is weak. He gains only the few marked new territory intersections. White's separation of the marked string is more valuable because the live white wall is strong and threatens to make much territory later.

Dia. 5.1: Black uses a leaning attack on the lower white group to attack the weak white group in the center. His new influence stones on the outside have the potential to make more new territory than in *Example 5*. For example, he can make territory in the center or by attacking the white group on the upper side.



Example 6: failure



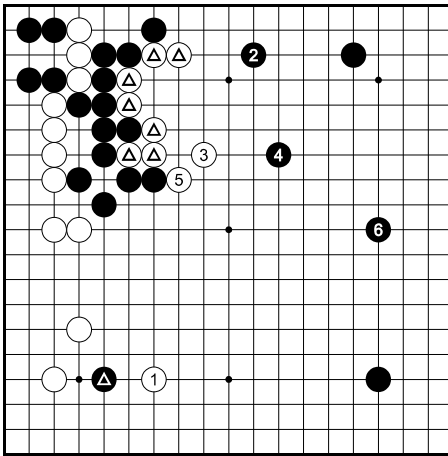
Dia. 6.1: correct

Example 6: Black fails to attack the white group seriously. It gets strong shape.

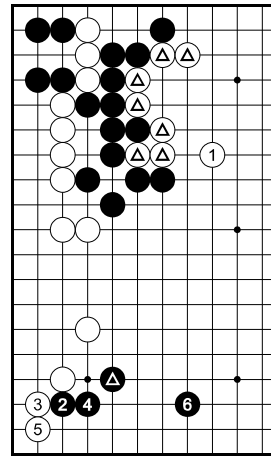
Dia. 6.1: Black makes almost the same amount of territory as in *Example 6*. However, now he also launches a splitting attack. During the ensuing fight, he can expect to make much additional territory.

If there are several unsettled or unstable groups, another important middle game principle applies:

Attack or defend the bigger group.



Example 7: failure



Dia. 7.1: correct

Example 7: Instead of defending his marked big unstable group, White attacks the marked small black group consisting of just one stone. Black uses the good strategy of attacking the bigger unstable group and temporarily sacrificing the smaller unstable group to construct a big moyo in the upper right quarter.

Dia. 7.1: White must defend his marked bigger group and allow Black to defend his marked single stone.