How to Use the OhTeX Style File Ver.2.4

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OhTEX is a macro package called `OhTeX.sty` for LaTEX using the font file `shogi10`. The package can be used to produce shogi diagrams and game records in LaTEX documents. To use OhTEX put `OhTeX` in the documentstyle options:

```
\documentstyle[....,OhTeX]{.....}
```

In LaTEX2, use

```
\usepackage{OhTeX}
```

in the header of the LaTEX document.

1 Producing a Board Position

There are two types of shogi positions that can be produced by OhTEX:

- Positions from shogi games
- Tsume shogi positions

The difference between the two is that positions from shogi games have a complete 9 x 9 board with the pieces in hand for both black and white visible. In contrast, tsume shogi positions can be defined to display only a section of the board and have only the black (attacking) pieces in hand displayed.

When printing a position from a game, the macro command `\shogiban` is used. There are different sizes of the board, for which the commands `\Shogiban, \SHOGIBAN` exist. `\shogiban` is the smallest board size, while `\SHOGIBAN` is the largest. The pieces on the board as well as the black and white pieces in hand are parameters of the `\shogiban` command. For example, a black pawn on 7f is written as `\koma76\FU`. The keyword `\koma` is followed immediately (without spaces) by the x-coordinate and y-coordinate of the square the piece is on and by the name of the piece. Piece names are defined as follows:

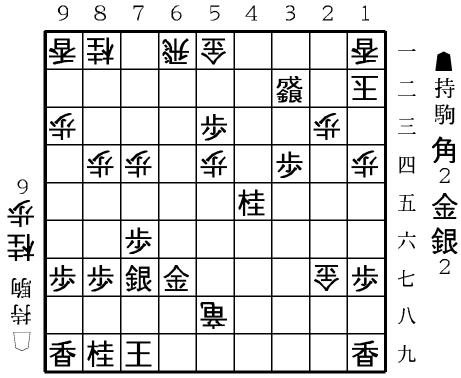
`\FU` 歩 (Pawn)	`\KY` 香 (Lance)	`\KE` 桂 (Knight)
`\GI` 銀 (Silver)	`\KI` 金 (Gold)	`\KA` 角 (Bishop)
`\HI` 飛 (Rook)	`\GY` 玉 (King, Gyoku)	`\OU` 王 (King, Osama)
`\TO` と (Promoted Pawn)	`\NY` 馨 (Promoted Lance)	`\NK` 雚 (Promoted Knight)
`\NG` 鐱 (Promoted Silver)	`\UM` 馬 (Promoted Bishop)	`\RY` 竜 (Promoted Rook)

The white pieces are described in the same way with the second letter of the piece changed from a capital letter to a small letter. For example, a white pawn on 3d is described as `\koma34\Fu`. The order in which the pieces are described is free. If black has one rook in hand, this is described as `\mochigoma\HI`. If white has two silvers in hand, this is described as `\mochigoma[2]\Gi`. Instead of `\mochigoma[2]\Gi` it is also possible to use `\mochigoma\Gi\mochigoma\Gi`. In the first case, this is printed as "銀2", while in the second case this is printed as "銀銀".

If there is more than one different type of piece in hand, a different `\mochigoma` statement should be used for each piece type. For example, if black has two knights and four pawns in hand, this should be written as `\mochigoma[2]\KE \mochigoma[4]\FU`.

As an example, here is the resignation diagram of game 2 of the 32nd Oi title match between Nakata Hiroki (black)and Tanigawa Koji (white).

```
\shogiban{
\koma11\Ky \koma12\Gy \koma14\Fu \koma17\FU \koma19\KY
\koma23\Fu \koma27\Ki \koma32\NG \koma34\FU \koma45\KE
\koma51\Ki \koma53\FU \koma54\Fu \koma58\Ry \koma61\Hi
\koma67\KI \koma74\Fu \koma76\FU \koma77\GI \koma79\OU
\koma81\Ke \koma84\Fu \koma87\FU \koma89\KE \koma91\Ky
\koma93\Fu \koma97\FU \koma99\KY \mochigoma[2]\KA
\mochigoma\KI \mochigoma[2]\GI \mochigoma\Ke
\mochigoma[6]\Fu
}
```



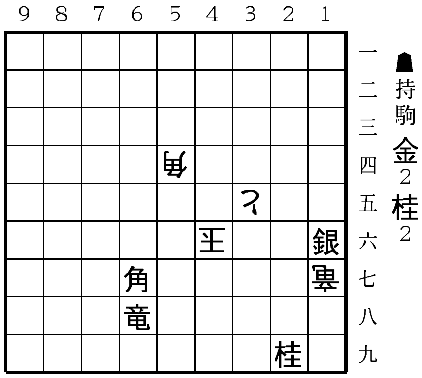
There is a special command `\shogiban{\hirate}` for the starting position of a shogi game.

Note that OhTEX does not check the board position for correctness. Checks like making sure that the total number of pieces is 40, that there is exactly one king for each side, that there are no multiple pieces on the same square, that there are only unpromoted pieces in hand are not implemented in the current version of OhTEX. It is left to the person entering the diagrams to make sure that they are correct.

To make tsume shogi diagrams, the macro `\tsumeshogi` is used. Like for normal shogi positions, for tsume shogi the macros `\Tsumeshogi`, `\TSUMESHOGI` for bigger diagrams are also available. For tsume positions, it is possible to print only a part of the board. For example, to print the portion of the board from the 5th file to the 9th file and the 1st rank to the 3rd rank, the command `\tsumeshogi{5}{9}{1}{3}{...}` is used. First the files (from left to right) and then the ranks (top to bottom) must be defined. To print a full board, `{1}{9}{1}{9}` can be used. After defining the portion of the board to print, the pieces on the board and the pieces in hand are defined.

As an example, here is a tsume shogi problem by Masatoshi Togashi (winner of the 77th Tsukada tsume shogi award) as published in the January 1992 issue of Kindai Shogi.

```
\tsumeshogi{1}{9}{1}{9}{
\koma16\GI \koma17\Ry \koma29\KE \koma35\To
\koma46\Gy \koma54\Ka \koma67\KA \koma68\RY
\mochigoma[2]\KI \mochigoma[2]\KE
}
```



2 Producing Shogi Game Records

There are a number of macros that can be used to produce move sequences from shogi games or tsume shogi in OhTEX. `\Kuro` gives a black piece-like mark that is normally used to precede black moves, followed by a single parameter in brackets consisting of the destination square and the piece that moved. `\kuro` has three parameters defining the destination square and the piece that moved. `\Siro` is the same macro for white move with one parameter in brackets, while `\siro` is the corresponding macro with three parameters. For example, a black pawn move to 7f is described as `\kuro76\FU`. 7, 6 and `\FU` are the three parameters of this macro. In the same way, a white pawn move to 3d is described as `\siro34\FU`. Please note that there is a difference between the use of capital letters and small letters. The names of the pieces are the same as described earlier. Some extra macros are needed, for example to make a difference between multiple pieces that can move to the same square:

`\migi`	右 (Right)	`\hidari`	左 (Left)
`\yoru`	寄 (Sideways)	`\iku`	行 (Move into promotion zone)
`\choku`	直 (Gold Upwards)	`\hiku`	引 (Backwards)
`\agaru`	上 (Upwards)	`\ai`	合 (Interpose)
`\da`	打 (Drop)	`\fu`	不 (Non-promotion)
`\dou`	同 (Take on same square)	`\nari`	成 (Promote)

For example, to describe a recapture by a promoted silver, both `\Siro{\dou\nari\GI}` and `{\siro\dou\nari\GI}` can be written. Here is the solution of the tsume shogi problem above:

```
\kuro56\KI \siro36\GY \kuro28\KE \Siro{\dou\RY}
\kuro38\RY \Siro{\dou\RY} \kuro48\KE \Siro{\dou\RY}
\kuro58\KA \Siro{\dou\RY} \kuro37\KI\ Mate in 11 moves
```

☗5六金☖3六玉☗2八桂☖同竜
☗3八竜☖同竜 ☗4八桂☖同竜
☗5八角☖同竜 ☗3七金 Mate in 11 moves

3 Choosing the Shogi Font

For the fonts used to print the shogi pieces, the Roman font (`\rm`), and the Bold font (`\bf{}`) are combined into the `\sh` command. For example

`{\sh\KI\GI\Ki\Gi}`

is printed as 金銀. To get the black and white piece symbols

`{\sh\sirokoma\kurokoma}`

gives ☖☗. Normally,

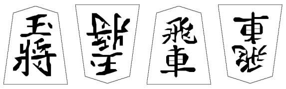
`\Siro{\dou\GI}\Kuro{\dou\KA}`

will lead to printing ☖同銀☗同角.

Finally, a not often used option is to print shogi pieces with a normal shogi piece shape:

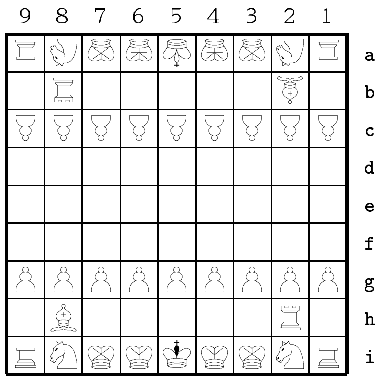
`{\HUGE\sh\char2\char3\char4\char5}`

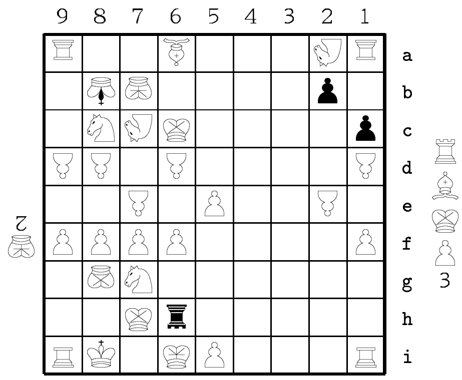
is a command that gives:



4 Western Style Diagrams

For people who are not used to kanji characters, it might be difficult to comprehend the meaning of a shogi position written in the style explained earlier. In that case, it is possible to change the pieces to a style that is similar to chess pieces by using the command `\ChessStyle`. In that case the coordinates of the ranks are changed to `a,b,c...`. Also, promoted pieces are printed in black. It is possible to switch back to kanji by using the command `\KanjiStyle`.





To print game records in Western style, the command `\mv` can be used. This command has three parameters `#1,#2,#3` that are defined as follows:

#1 : Number of moves (when omitted, this is the previous move number plus one)

#2 : Black move (when omitted "..." is printed)

#3 : White move (when omitted, nothing is printed)

The parameters should be seperated by a comma and the command should be terminated with a period ".".

For example

`\mv30,\OU5a,\FU'2d. \mv,,\FUx1d. \mv,\OU4a+,\KI'3c. \mv,\OU4b,.`

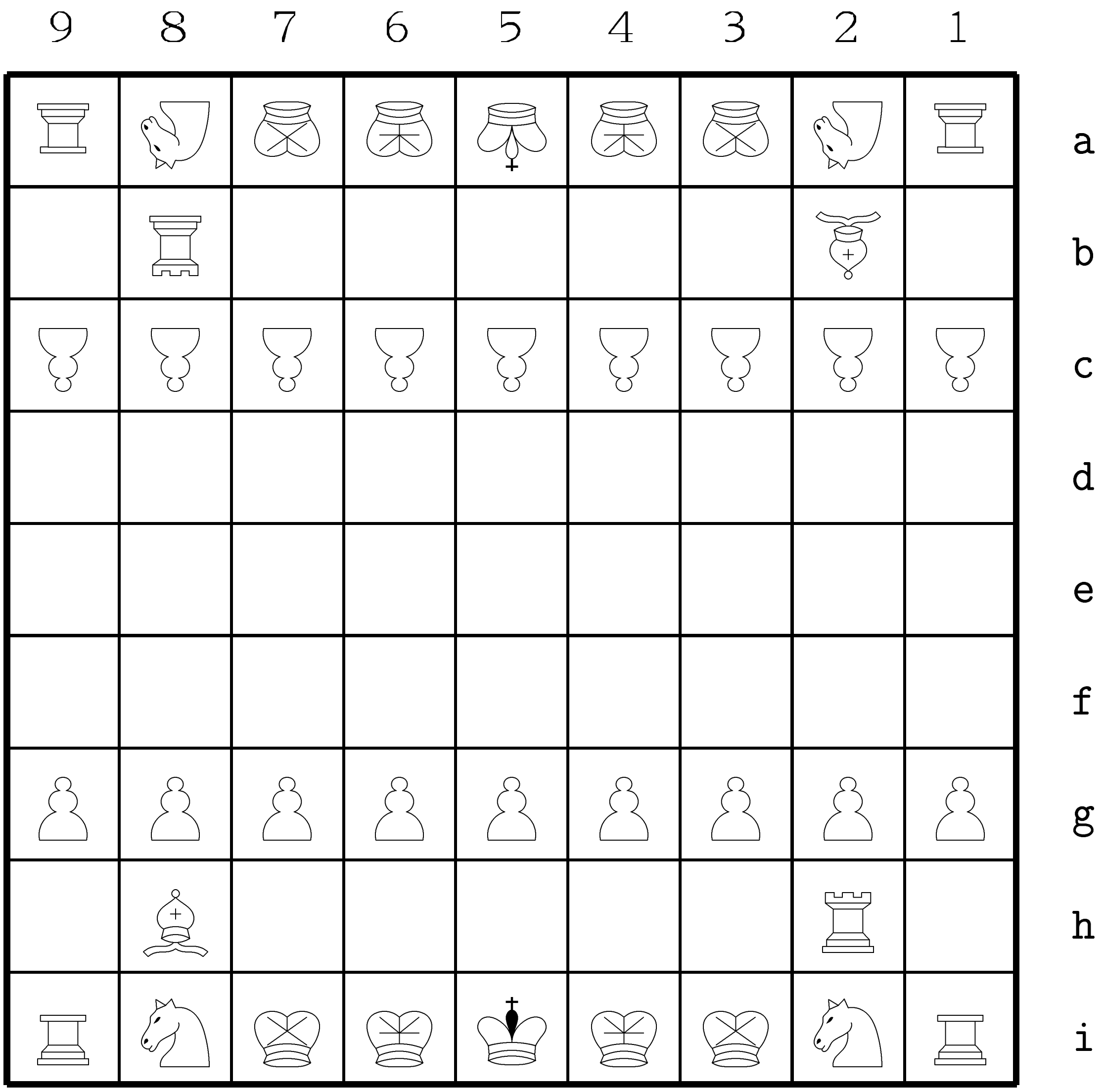
is printed as

30. ♔5a ♙'2d **31.** ... ♙x1d **32.** ♔4a+ ♕'3c **33.** ♔4b

It is also possible to use the kifu environment as follows:

```
\begin{kifu}[5]
\mv,\KI5f,\OU3f. & \mv,\KE2h,\HIx2h. & \mv,\HI3h,\HIx3h. & \mv,\KE4h,\HI4h.\\
\mv,\KA5g,\HI5g. & \mv,\KI37,.
\end{kifu}
```

5. ♕5f ♔3f **6.** ♘2h ♖x2h **7.** ♖3h ♖x3h **8.** ♘4h ♖4h
9. ♗5g ♖5g **10.** ♕37



5 The Size of the Shogi Font

In the OhShow Toolkit, shogi fonts from `tiny` to `HUGE` are available (for the `HUGE` size the `shogi10` fonts can be used). Here are examples of the difference size shogi fonts when compared to normal size:

Size	`\KanjiStyle`	`\ChessStyle`
`\tiny`	☖8七銀	**1.** … 8g
`\scriptsize`	☖8七銀	**1.** … 8g
`\small`	☖8七銀	**1.** … 8g
`\normalsize`	☖8七銀	**1.** … 8g
`\large`	☖8七銀	**1.** … 8g
`\Large`	☖8七銀	**1.** … 8g
`\LARGE`	☖8七銀	**1.** … 8g
`\huge`	☖8七銀	**1.** … 8g
`\HUGE`	☖8七銀	**1.** … 8g

6 Examples

Here are figures with examples of the board sizes discussed previously.

```
\Shogiban{
\koma11\Ky \koma12\Gy \koma14\Fu \koma17\FU \koma19\KY \koma23\Fu \koma27\Ki
\koma32\NG \koma34\FU \koma45\KE \koma51\Ki \koma53\FU \koma54\Fu \koma58\Ry
\koma61\Hi \koma67\KI \koma74\Fu \koma76\FU \koma77\GI \koma79\OU
\koma84\Fu \koma87\FU \koma89\KE \koma91\Ky \koma93\Fu \koma97\FU \koma99\KY
\mochigoma[2]\KA \mochigoma\KI \mochigoma[2]\GI
\mochigoma[2]\Ke \mochigoma[6]\Fu
}
```

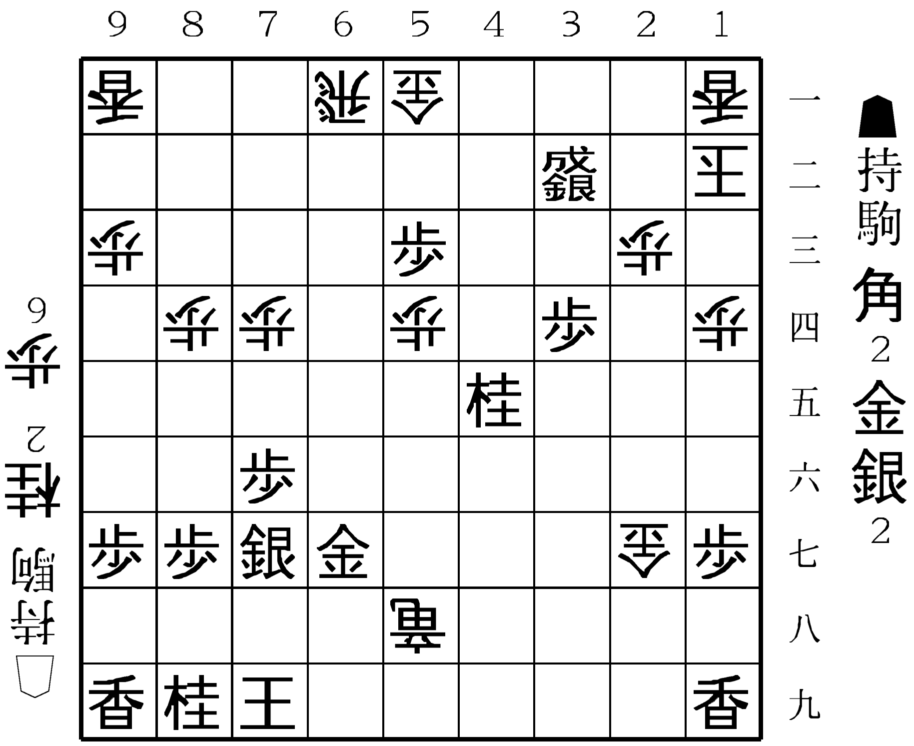


Figure 1: Example of the `\Shogiban` command

```
\SHOGIBAN{\hirate}
```

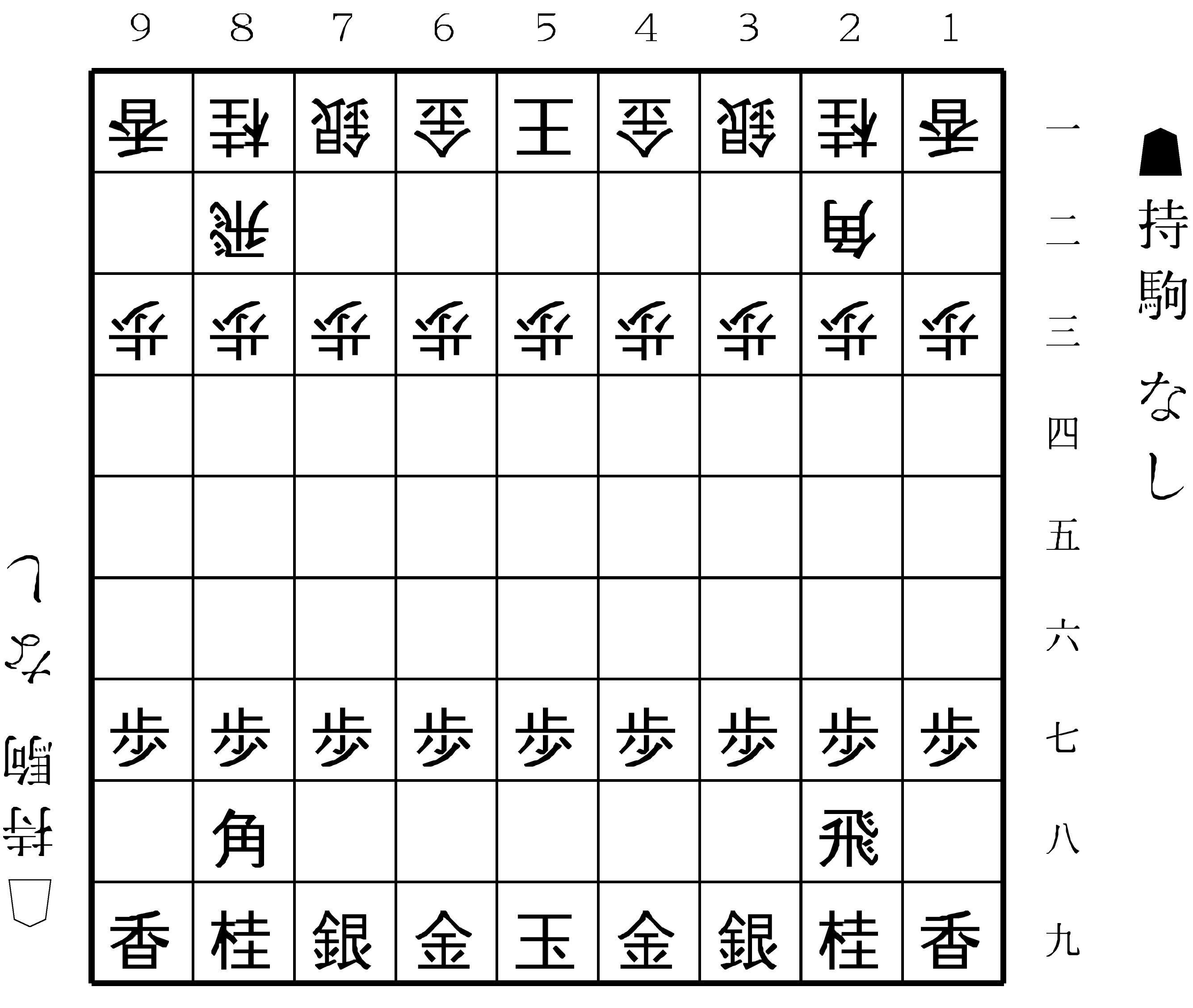
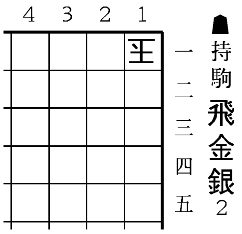
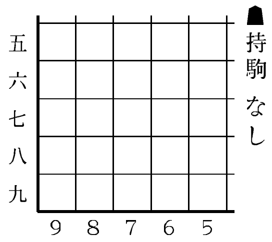


Figure 2: Example of the `\SHOGIBAN` command

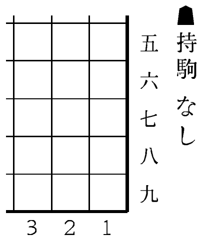
```
\tsumeshogi{1}{4}{1}{5}{
\koma11\Gy
\mochigoma\HI
\mochigoma\KI
\mochigoma[2]\GI}
```



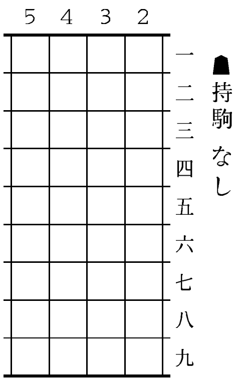

```
\tsumeshogi{5}{9}{5}{9}{}
```



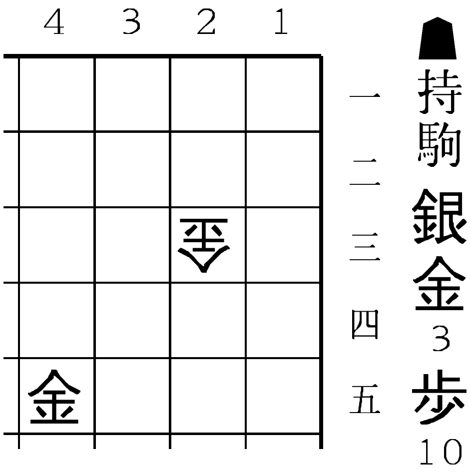

```
\tsumeshogi{1}{3}{5}{9}{}
```




```
\tsumeshogi{2}{5}{1}{9}{}
```




```
\Tsumeshogi{1}{4}{1}{5}{
\koma23\Ki \koma45\KI
\mochigoma\GI
\mochigoma[3]\KI
\mochigoma[10]\FU
}
```




```
\TSUMESHOGI{5}{9}{5}{8}{
\koma75\Fu \koma57\FU
\mochigoma[2]\HI
\mochigoma[10]\FU
}
```

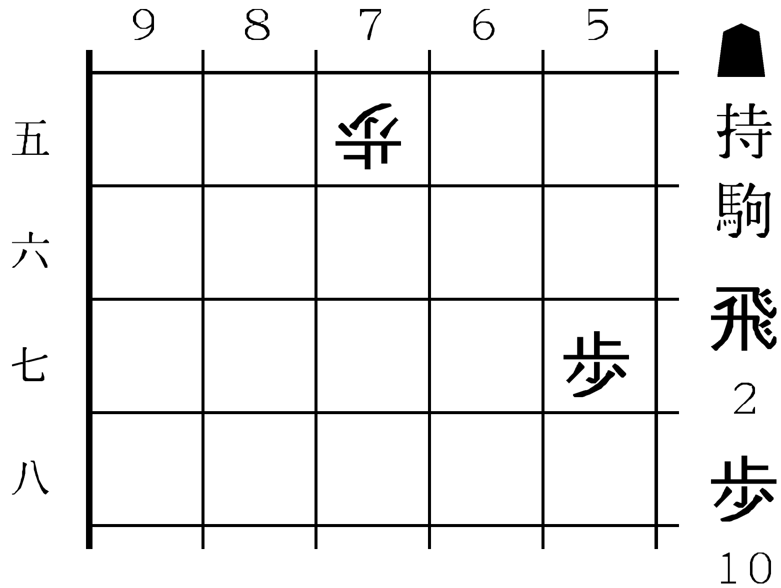
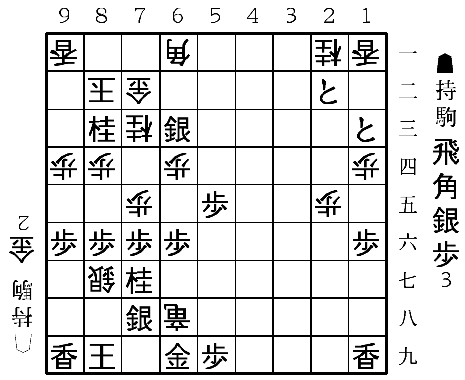
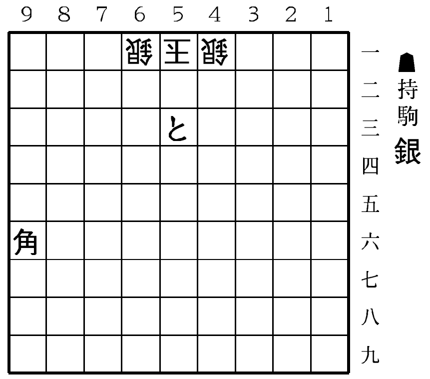


Figure 3: Examples of the `\tsumeshogi` commands



Attack? Defence?
Ladies' Osho Hayashiba Naoko (white) has just dropped ☖8七銀打. ☗同銀 or ☗6八金(taking the rook) are mate after ☖8八金打. It is possible to defend with ☗8八銀打 or ☗7九角打, but maybe ☗7二銀成☖同玉☗8一角打☖同玉☗7一飛打 ··· is leading to mate?
(April 25th 1989, Obihiro Grand Hotel)
[In "Logical Shogi for Beginners" p.99, diagram 27]



A small classic
If this is not mate, is this a position to apply more pressure with ☗4三銀?
[In "Logical Shogi for Beginners" p.180 diagram 1]

Figure 4: Other Examples