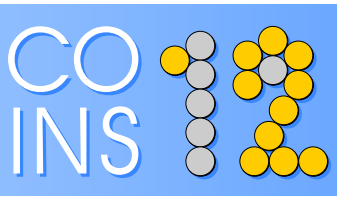
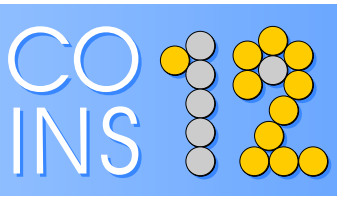


Print ‘n’ Play Collection

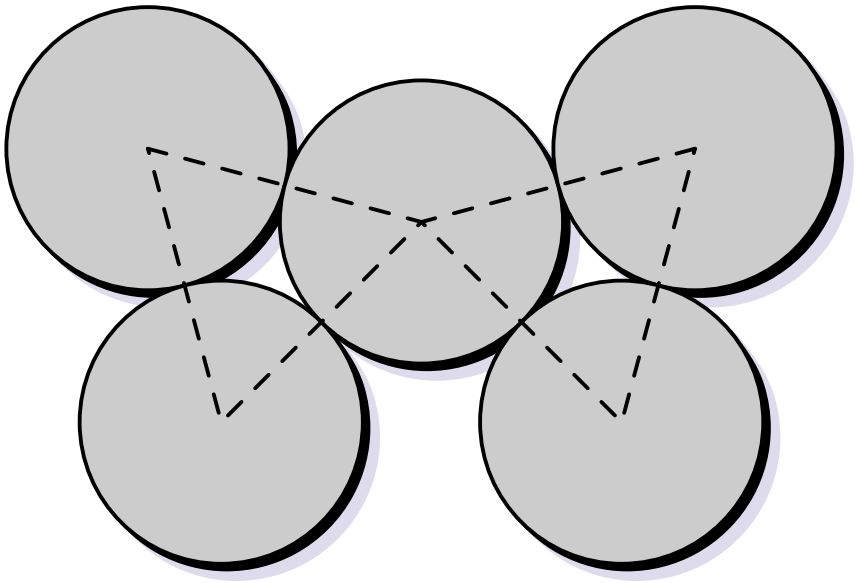
Of the 12 Puzzles with Coins

Puzzles.COM



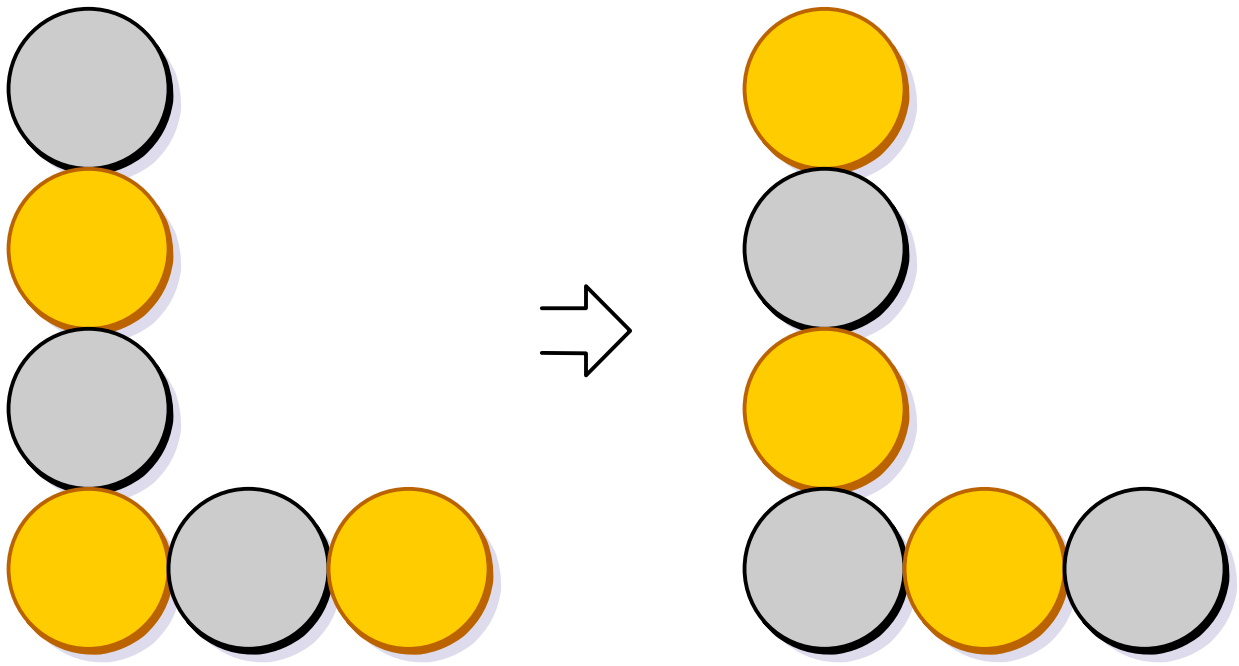
Puzzles

Puzzles.COM



Five identical coins are arranged into the shape shown in the illustration. As it can be seen centers of the coins lie in the vertices of two identical equilateral triangles shown with the dotted lines.

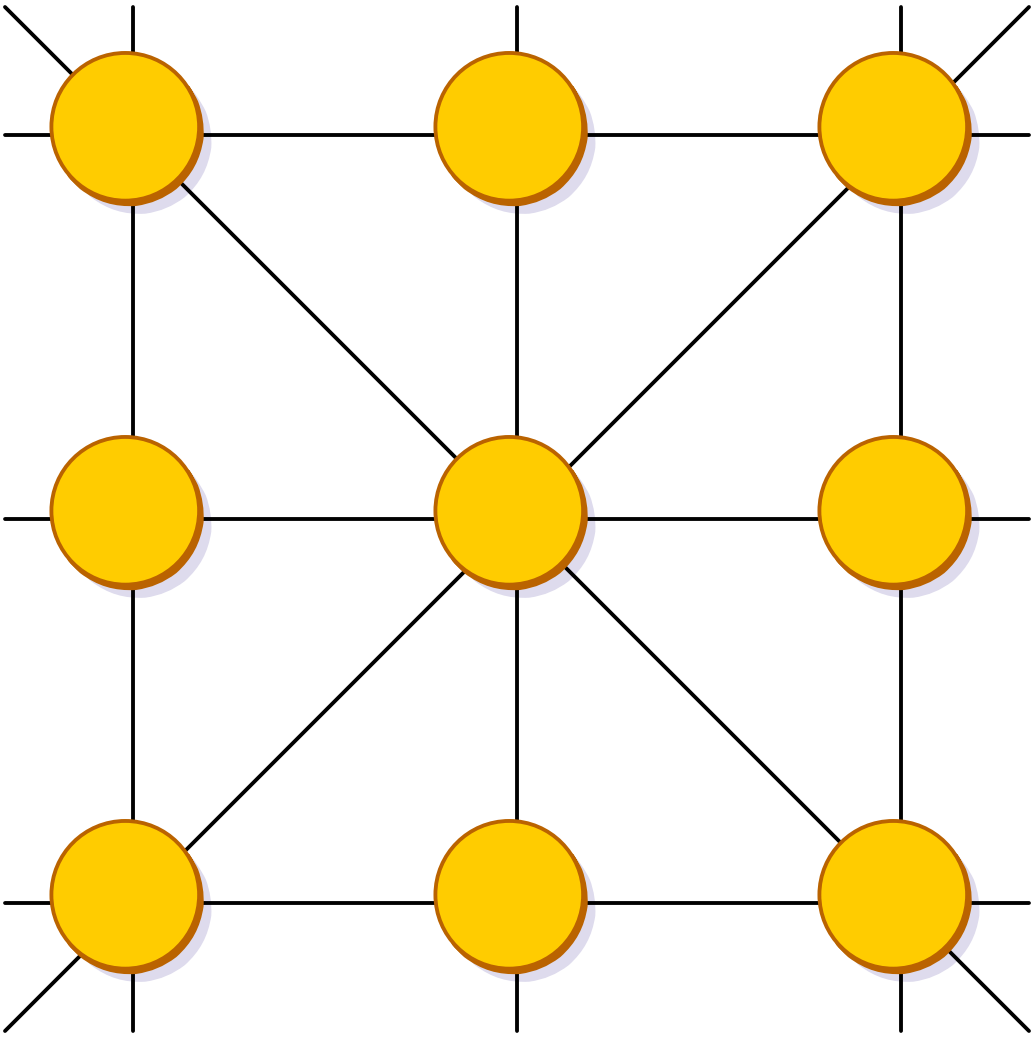
Make only two single-coin moves and create two different equilateral triangles instead of these identical ones. A single-coin move consists of sliding a coin to new position where it must touch at least two other coins.



Take six coins of the same size and arrange them in the capital L altering their heads and tails as shown in the illustration - left position.

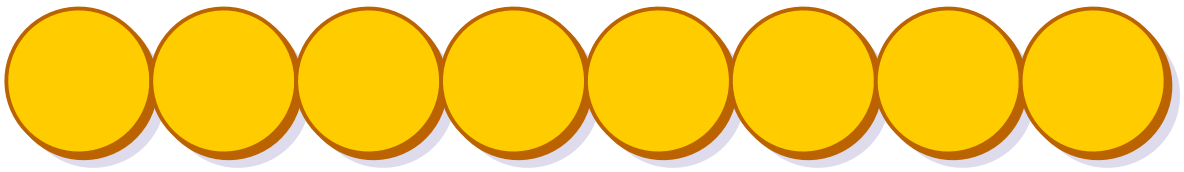
The goal is to make another L with all the coins having their heads and tails exchanged as shown in the right position of the illustration. It should be performed in the fewest possible number of moves.

A move consists of sliding a pair of the two adjoining coins to a new place. You have to slide the coins only orthogonally; it means that you are not allowed to rotate the pair of coins while you move it. The final L not necessarily has to be formed exactly at the same spot as the start L was.



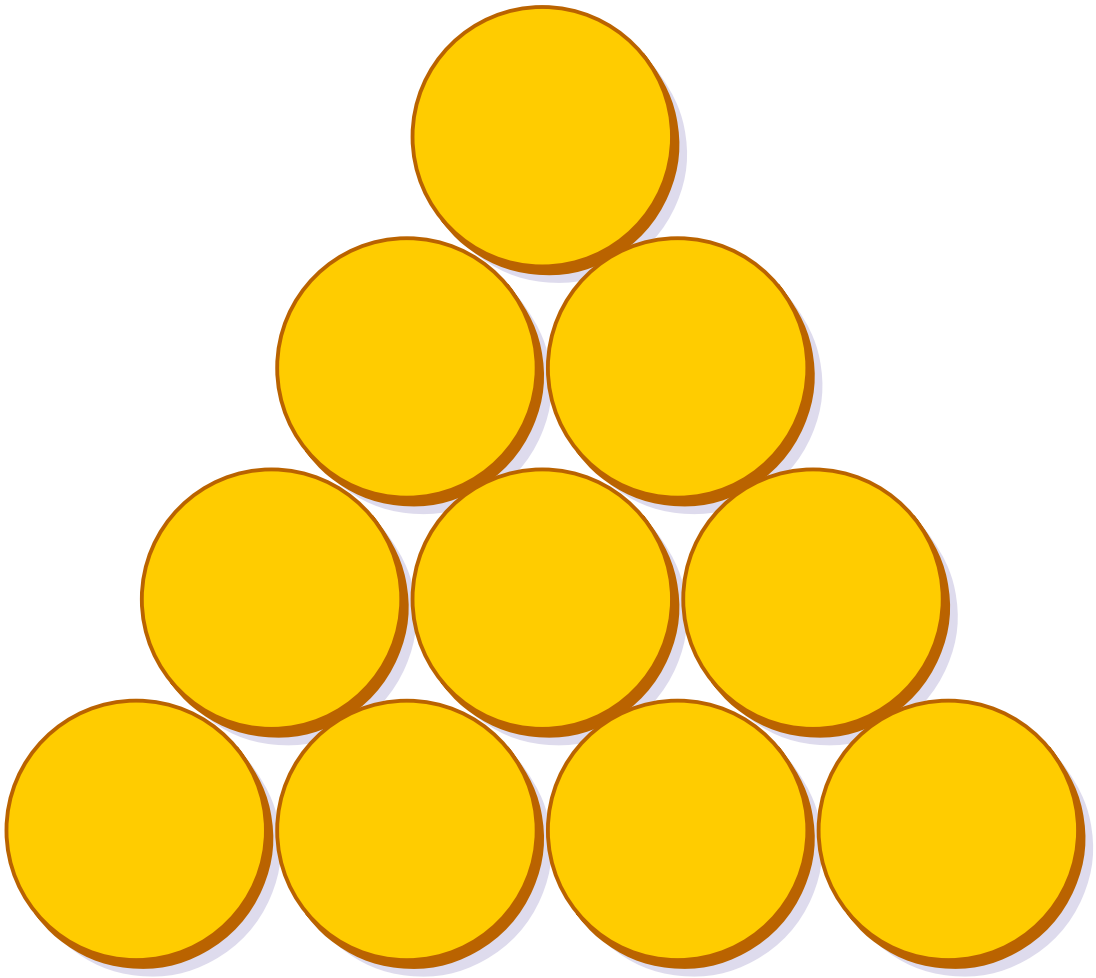
A square of nine coins shown in the illustration contains eight rows of three coins each (indicated with the lines) - three horizontal rows, three vertical rows and two main diagonals.

The object is to move the minimum possible number of coins to new positions so that to form ten rows of three coins each.



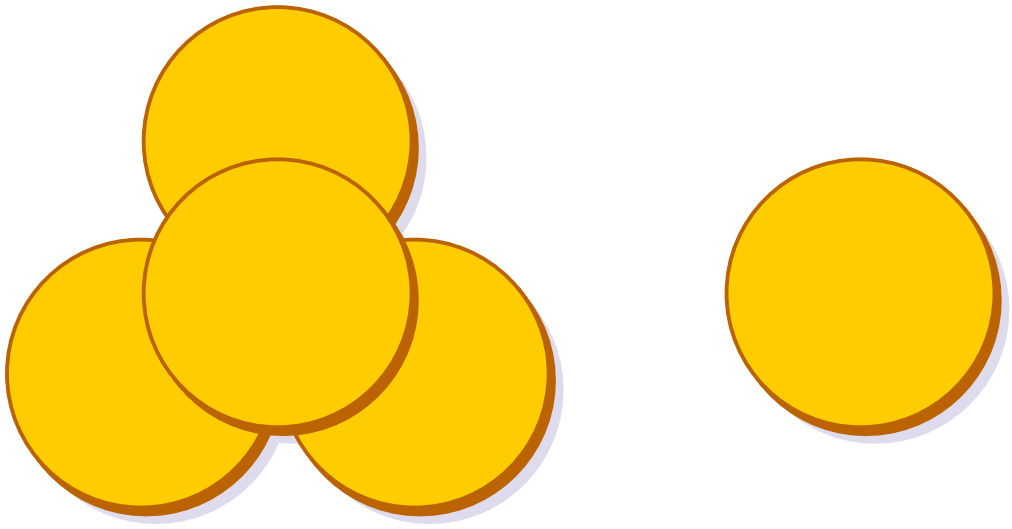
Place eight coins in a row as shown in the illustration. The object is to make from all the coins four stacks of two coins each and it should be done in four moves only.

Every move consists of jumping of a coin over any two coins (no matter lying flat or in a stack) in one direction, and stopping on the top of the next coin.



When the centers of any three coins lie in the corners of an equilateral triangle of some size, such coins form an equilateral coin triangle. How many equilateral coin triangles of different sizes can you count in the figure?

The object of the puzzle now is to remove the minimum number of coins so that no equilateral coin triangles remain. In other words, centers of any three coins among those that remained don't lie in the corners of an equilateral triangle.



It is quite easy to place four pennies in such a way that each penny touches every other one. Just place three of them on the table in the form of a triangle so that they touch one another, and then lay the fourth penny on top of this triangle - as shown in the illustration.

Now add one more penny and try to do the same thing with five pennies - again every penny has to touch every other penny.

Start Position

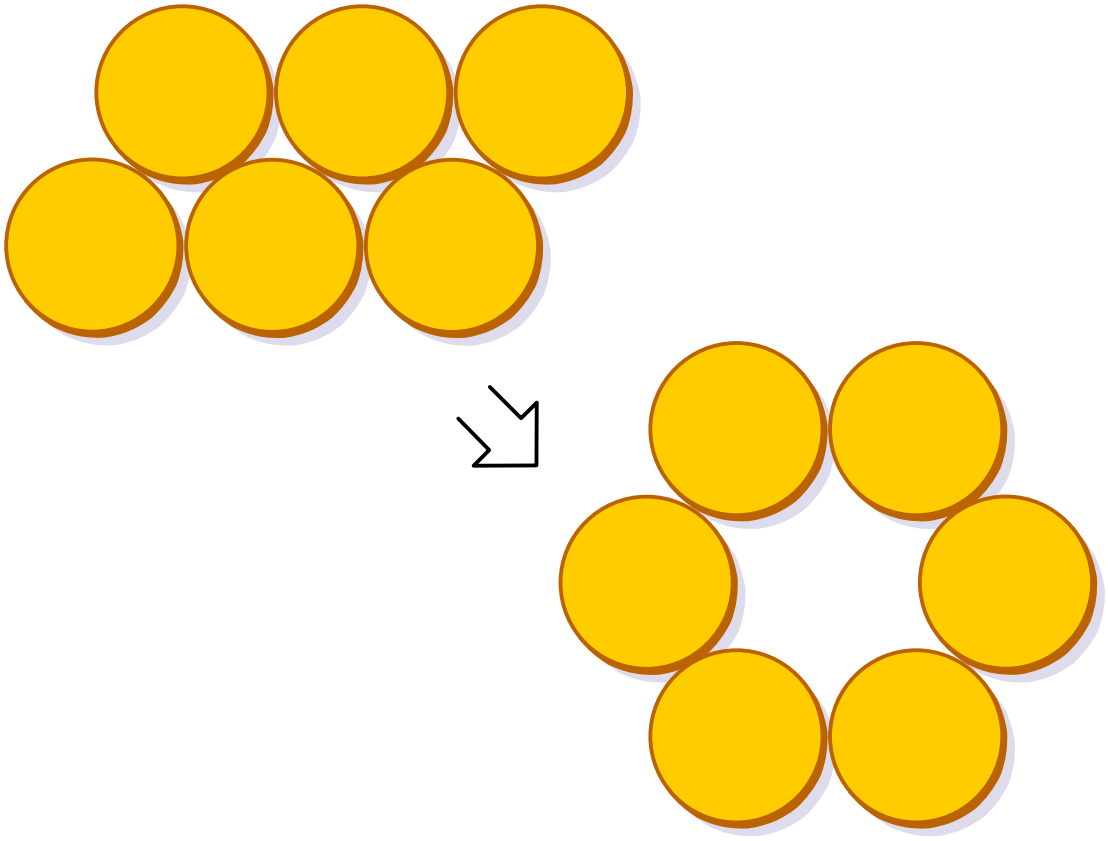
Finish Position

This puzzle was described by Edouard Lucas at the end of the 19th century.

Place three quarters and three pennies in a line of seven cells as shown in the Start Position above - quarters on the left, and pennies on the right. The middle cell is empty.

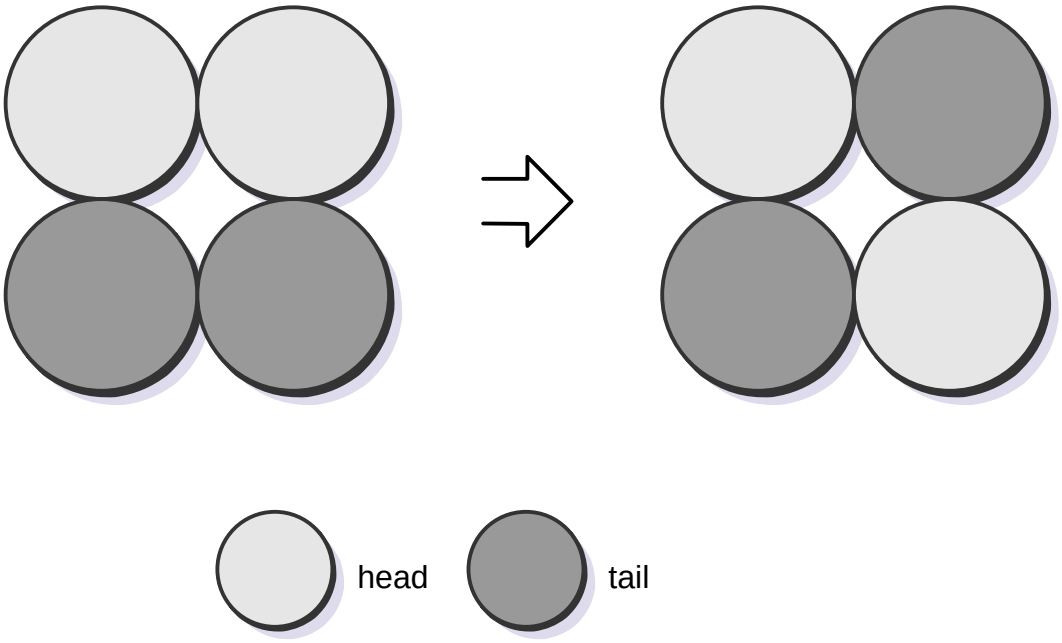
Now interchange two groups of coins moving quarters to the right and pennies to the left (Finish Position). The middle cell has to be empty when you finish.

Coins are moved just in a forward direction. This means you have to move quarters to the right and pennies to the left only. A move consists of moving a coin on the adjacent vacant cell, or jumping over an adjacent coin on the vacant cell immediately behind it.



Place six pennies on the table in two rows as shown in the uppermost figure. The object is to turn these two rows into the coin circle shown in the lowermost figure in only three moves.

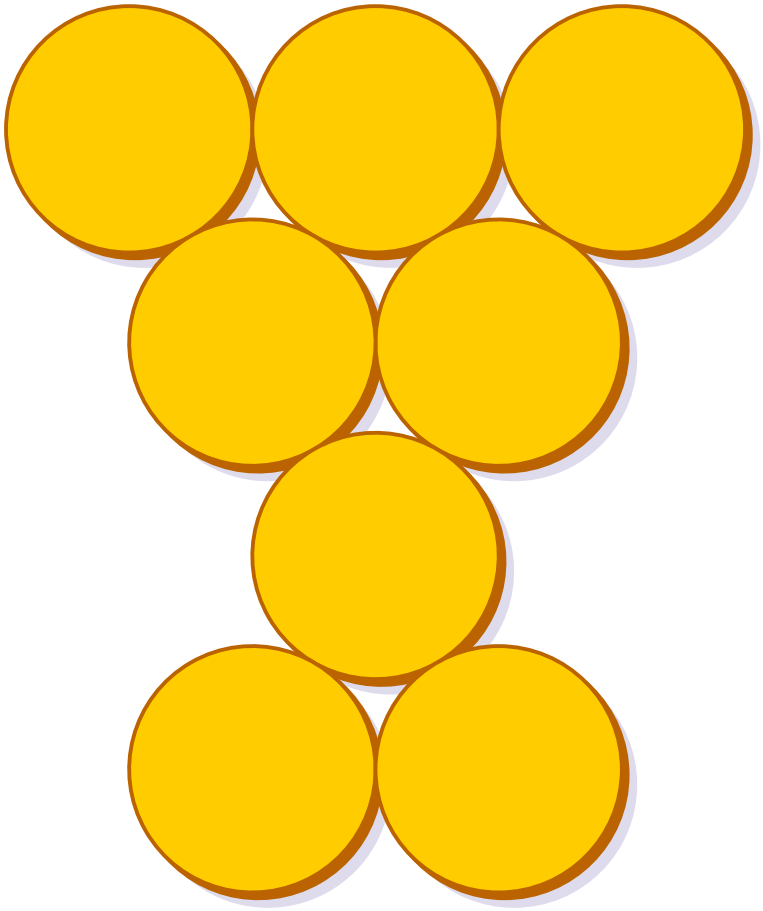
A move consists of sliding one coin to a new position, where the moved coin has to touch two other coins.



Take four coins of the same size and make a square as shown in the left square in the illustration; two coins - heads up in the top row, and the other two - tails up in the bottom row.

The object is to make another square with two coins heads up on one diagonal and with two coins tails up on the other - as shown in the right square in the illustration. This should be performed in the shortest possible number of moves.

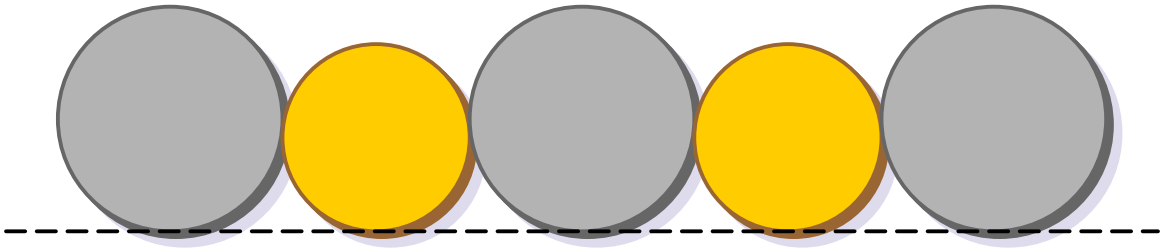
A move consists of sliding a pair of the two adjoining coins to a new place. You have to slide the coins only orthogonally; it means that you are not allowed to rotate the pair of coins while you move it. The final square not necessarily needs to be formed exactly at the same spot as the start square was.



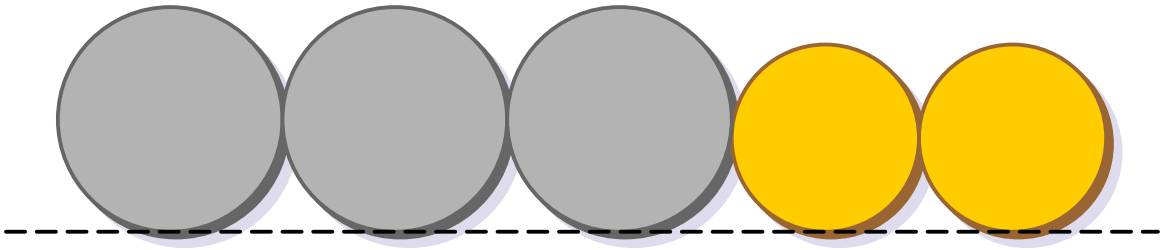
Make the depicted cup with eight coins of the same size as shown in the illustration.

The object is to move only two of them in a new position to get the cup standing upside-down.

You're allowed to move the coins as you wish but at the end the cup has to have exactly the same shape only rotated at 180 degrees from its start position.



Start Position

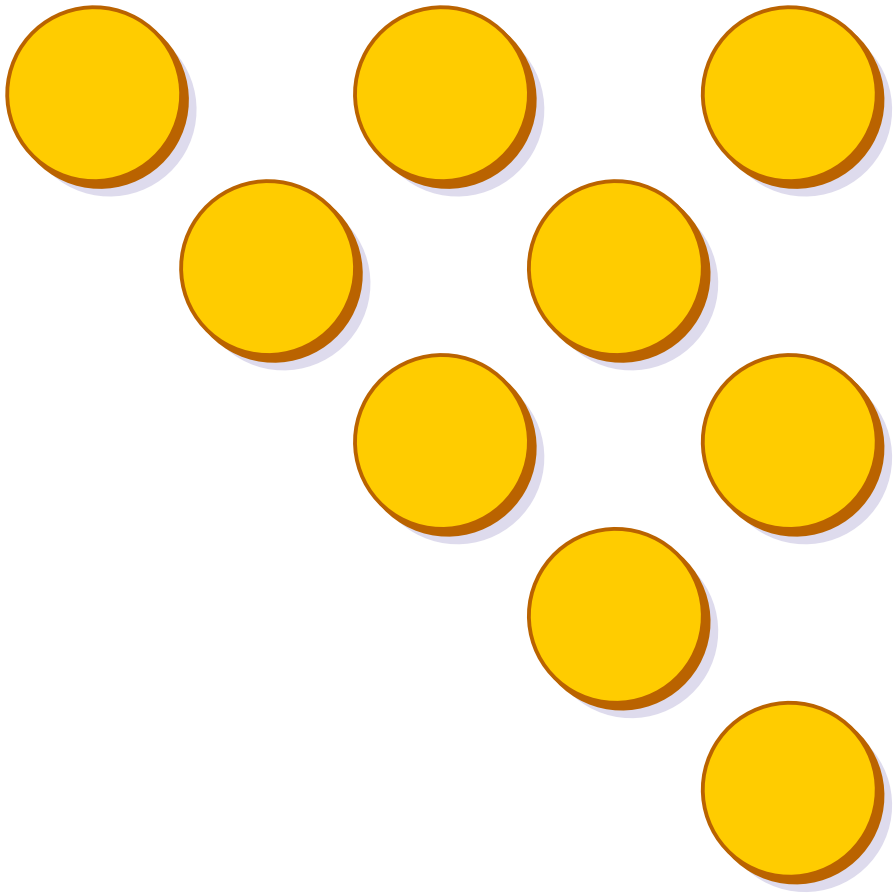


Finish Position

Arrange five coins (three bigger and two smaller ones) as shown above (top row) - Start Position.

The problem is to change their positions to those shown at the bottom of the illustration (Finish Position) in the shortest possible number of moves.

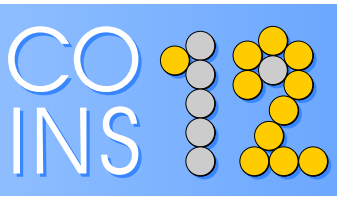
A move consists of placing the tips of the first and second fingers on any two touching coins, always of the different sizes, then sliding the pair to another spot along the imaginary line shown in the illustration. The two coins in the pair must touch at all times. The coin at left in the pair must remain at left; the coin at right must remain at right. Gaps in the chain are allowed at the end of any move except the final one. After the last move the coins need not necessarily be at the same spot on the imaginary line that they occupied at the start.



Arrange nine identical coins into the right triangle shown in the illustration.

Change the triangle into a square by moving the minimum of the coins.

How many coins will you need to move to do this?



Solutions

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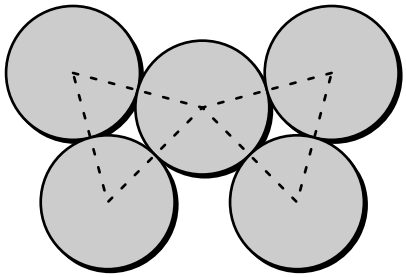
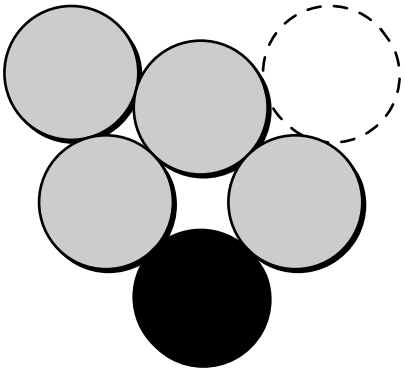
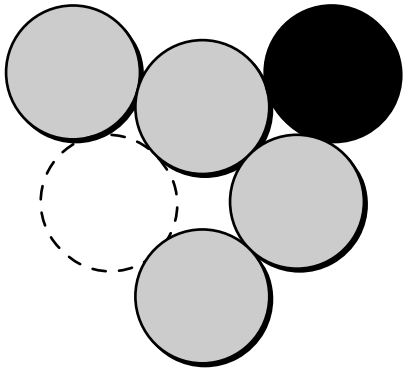


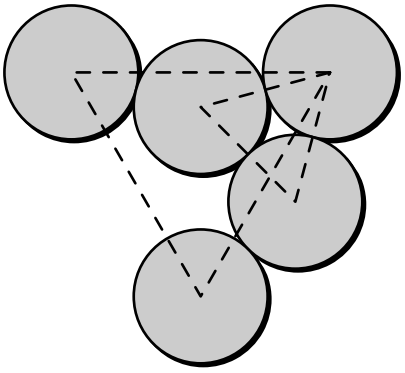
S



1

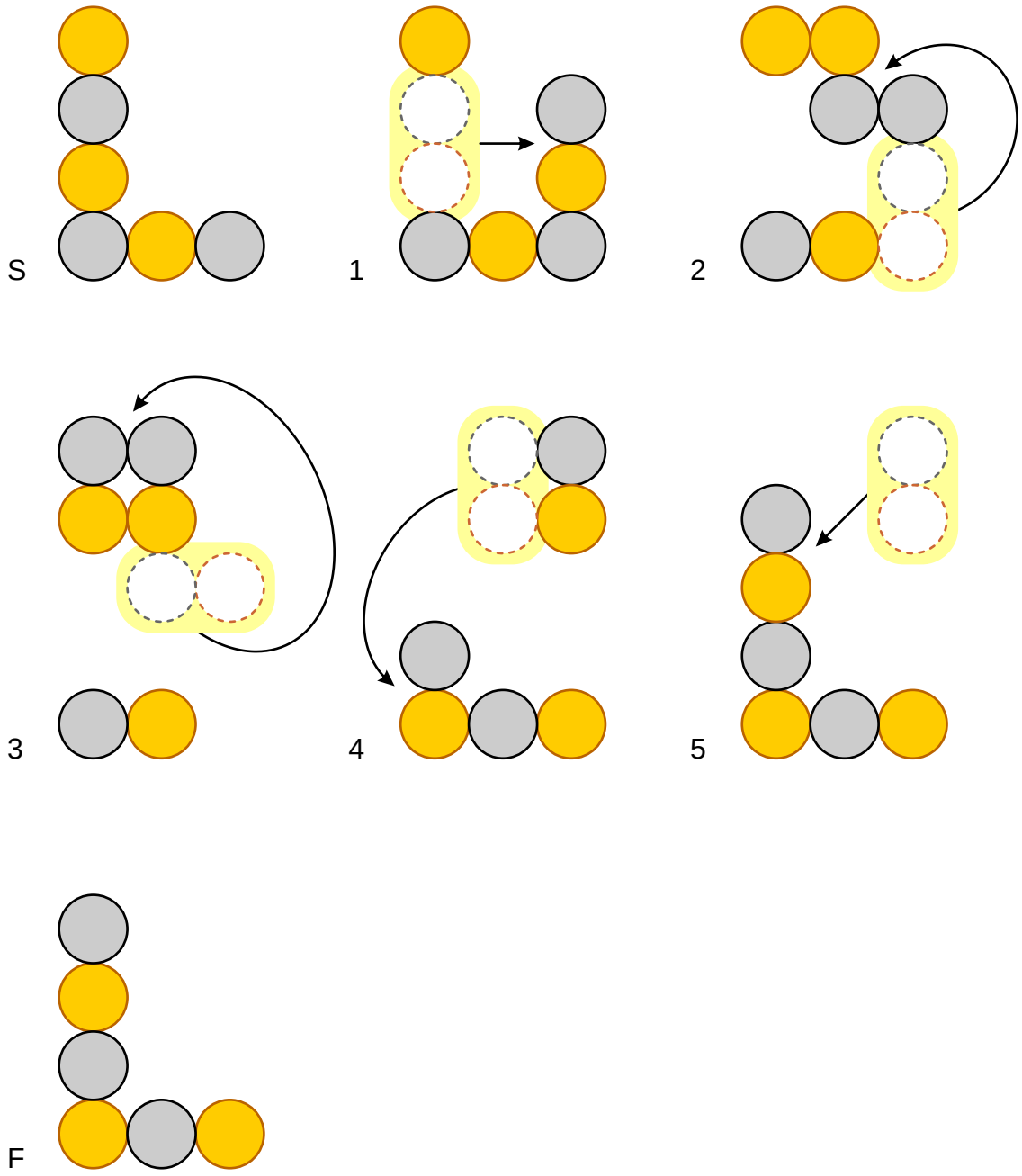


2

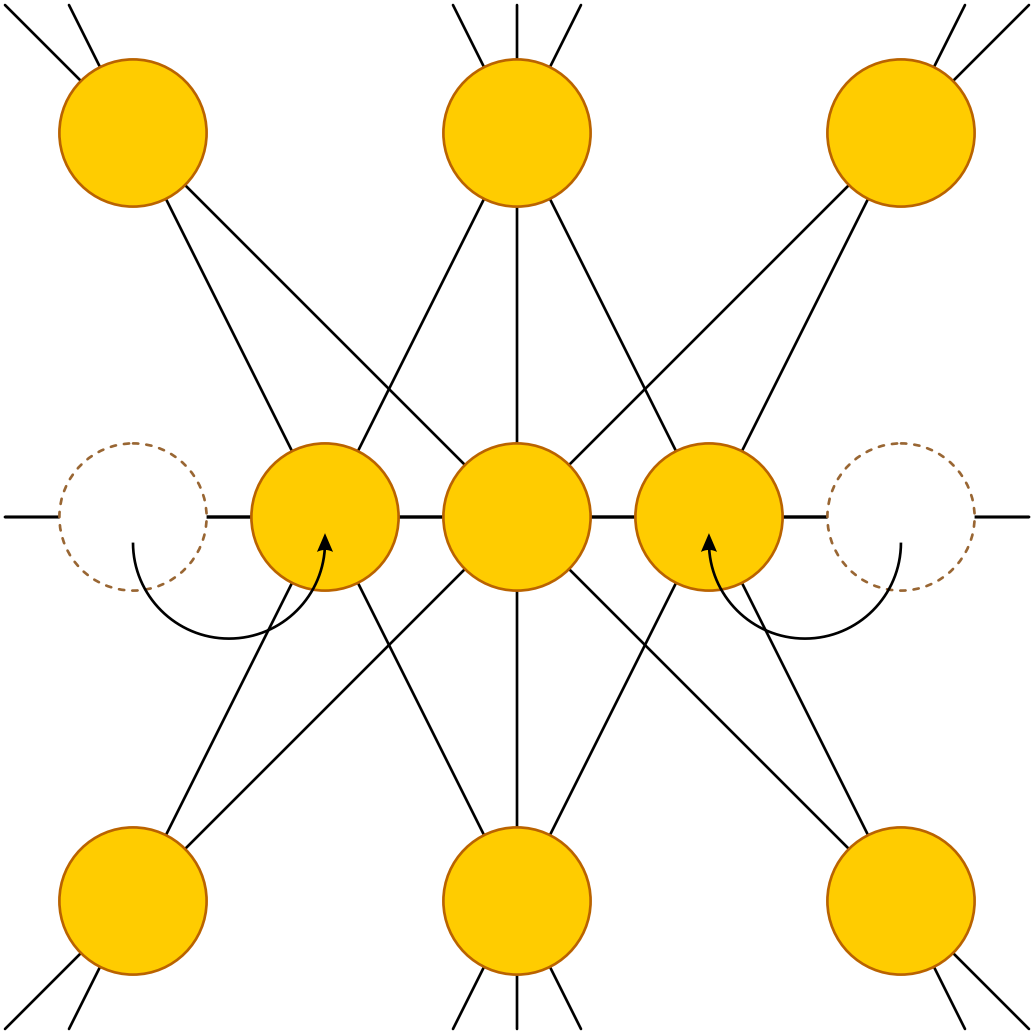


F

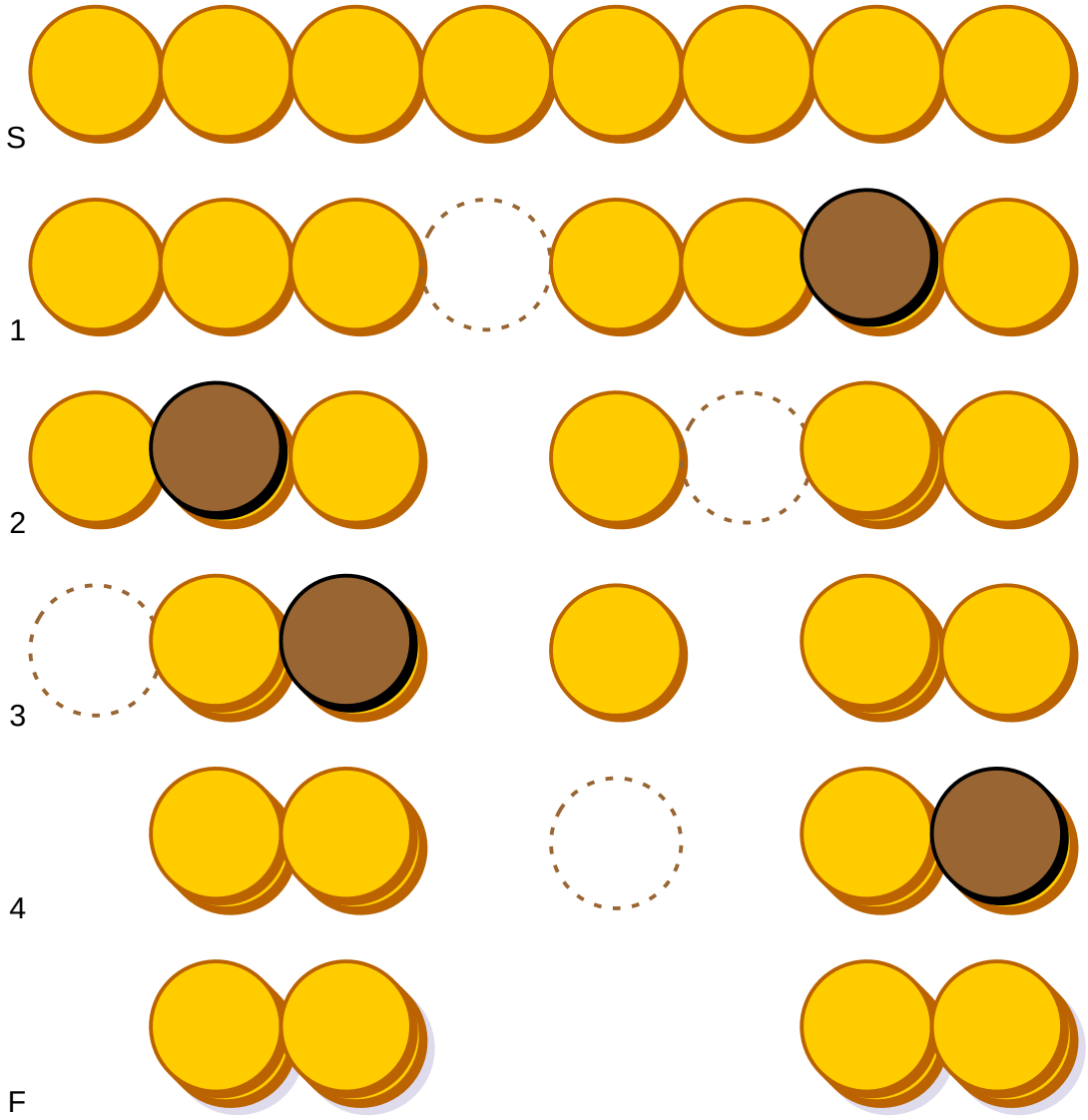
The solution is shown in the illustration.



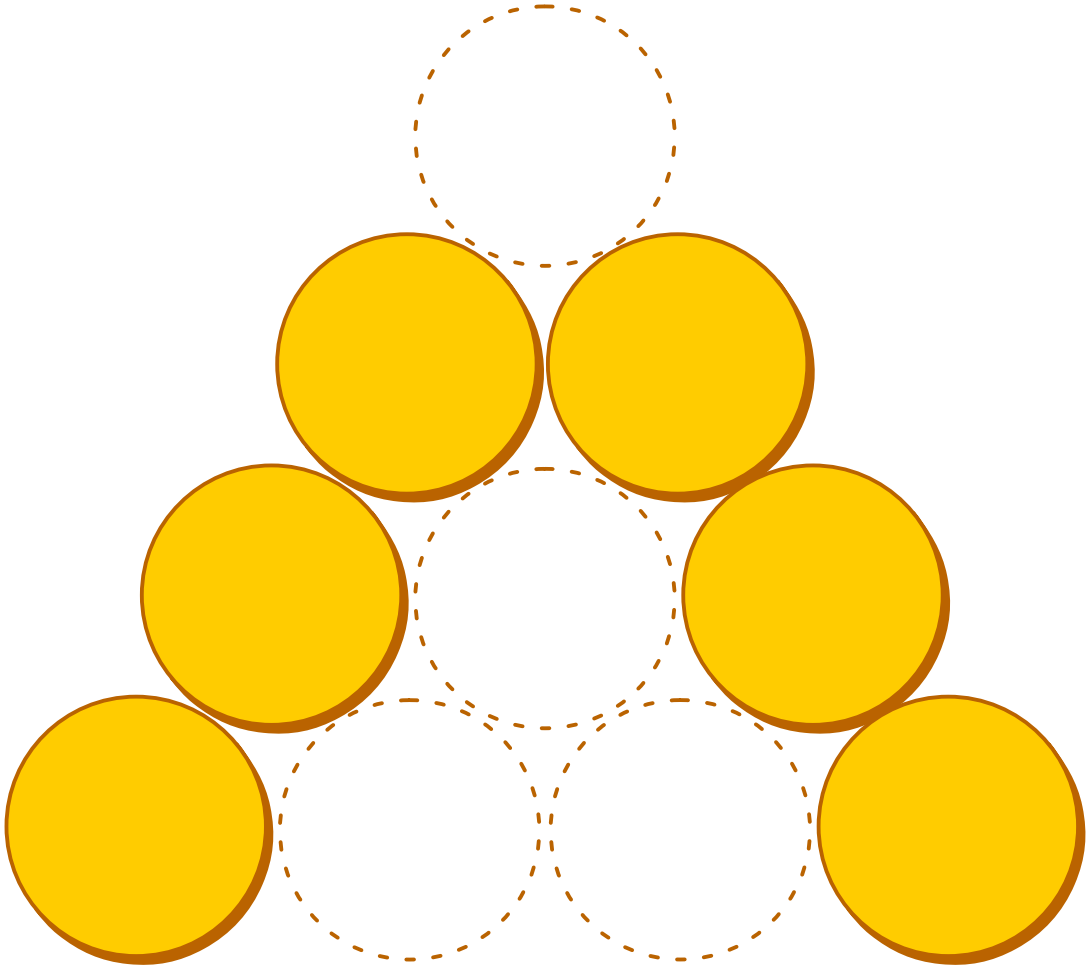
The solution to this puzzle can be performed in 5 moves as shown in the illustration.



This puzzle can be solved in just two moves shown in the illustration above. This makes exactly ten rows of three-in-a-row coins each.



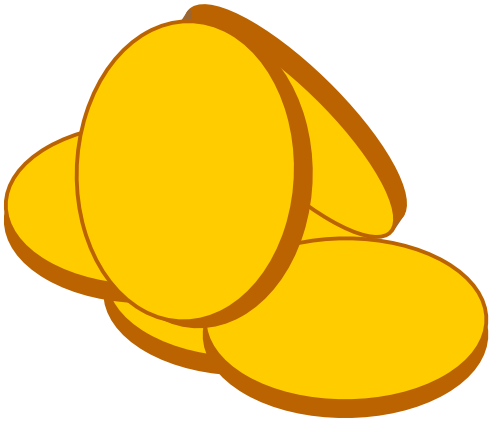
The solution is shown in the illustration.

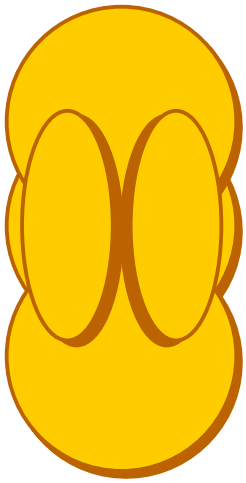


The minimum number of coins to remove is four.

The unique solution to this puzzle (except rotations and reflections) is shown in the illustration and the removed coins are shown with dotted outlines.

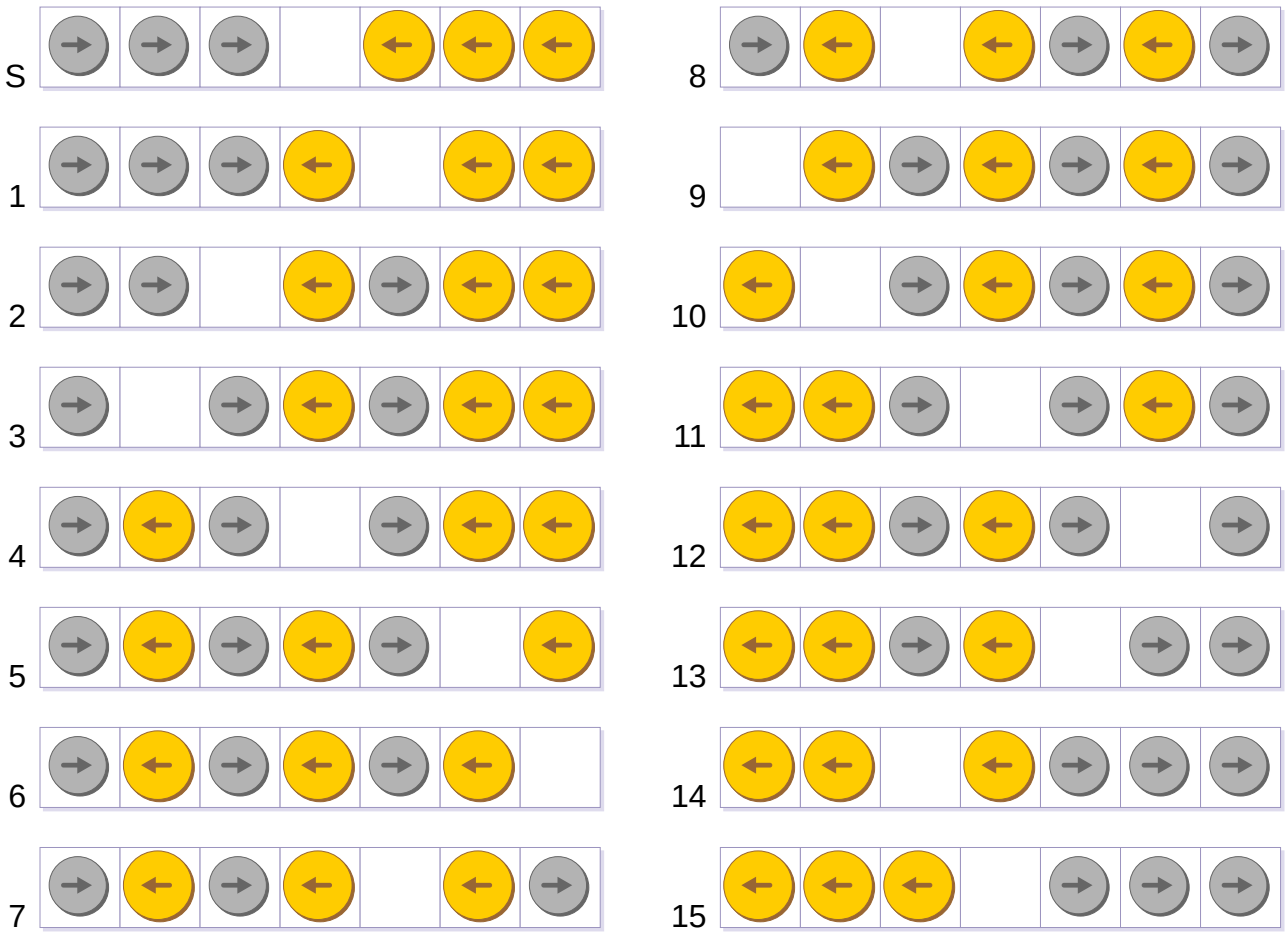
It can be seen that the centers of any three coins among the remaining ones don't lie in the corners of an equilateral triangle.



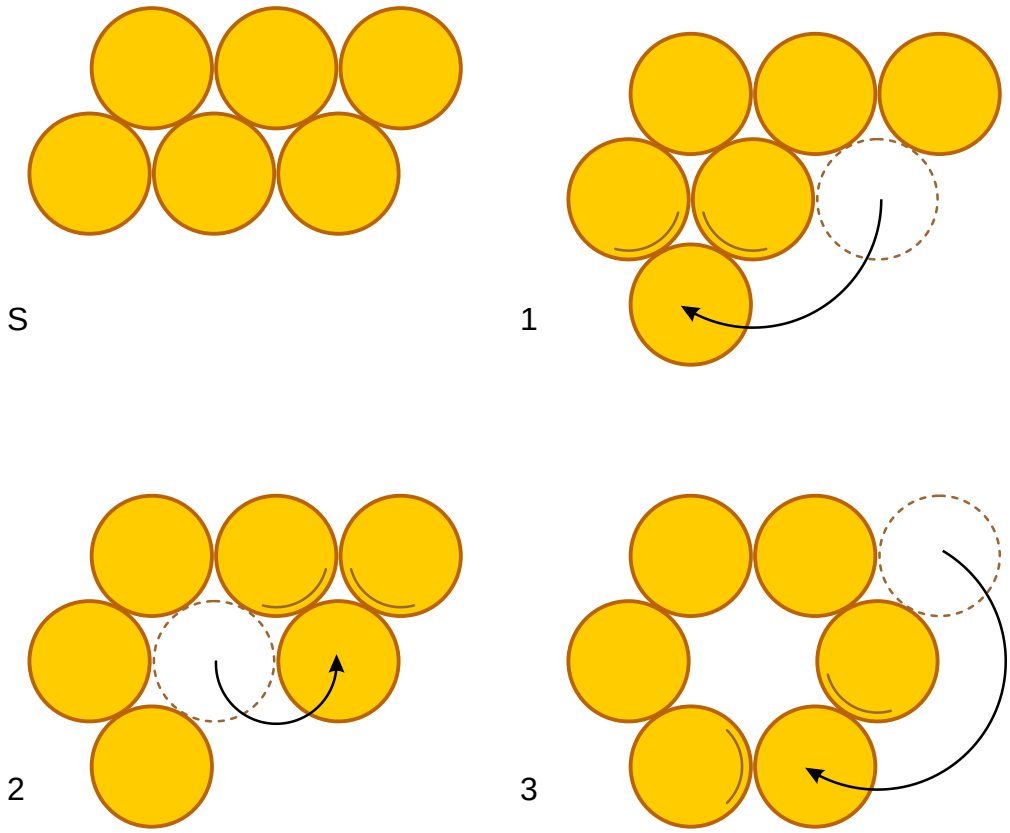


top view

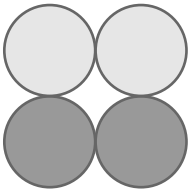
The solution is shown in the illustration.



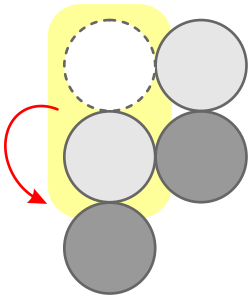
The minimum possible number of moves for this puzzle is 15. One of possible solutions is shown in the illustration.



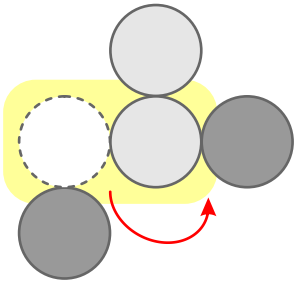
The solution is shown in the illustration.



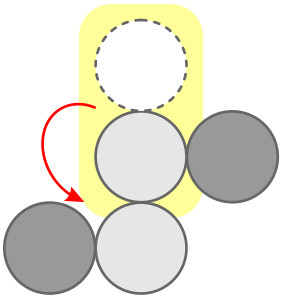
S



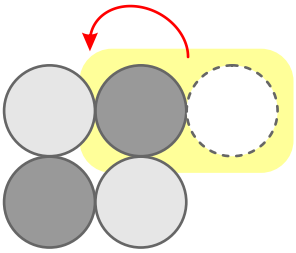
1



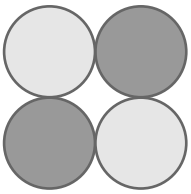
2



3

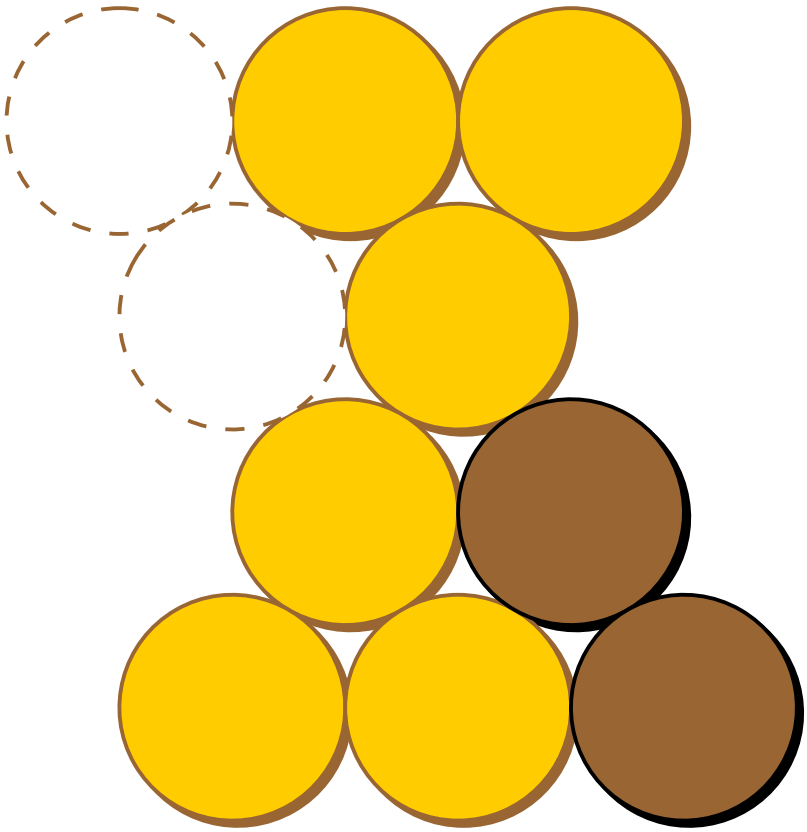


4

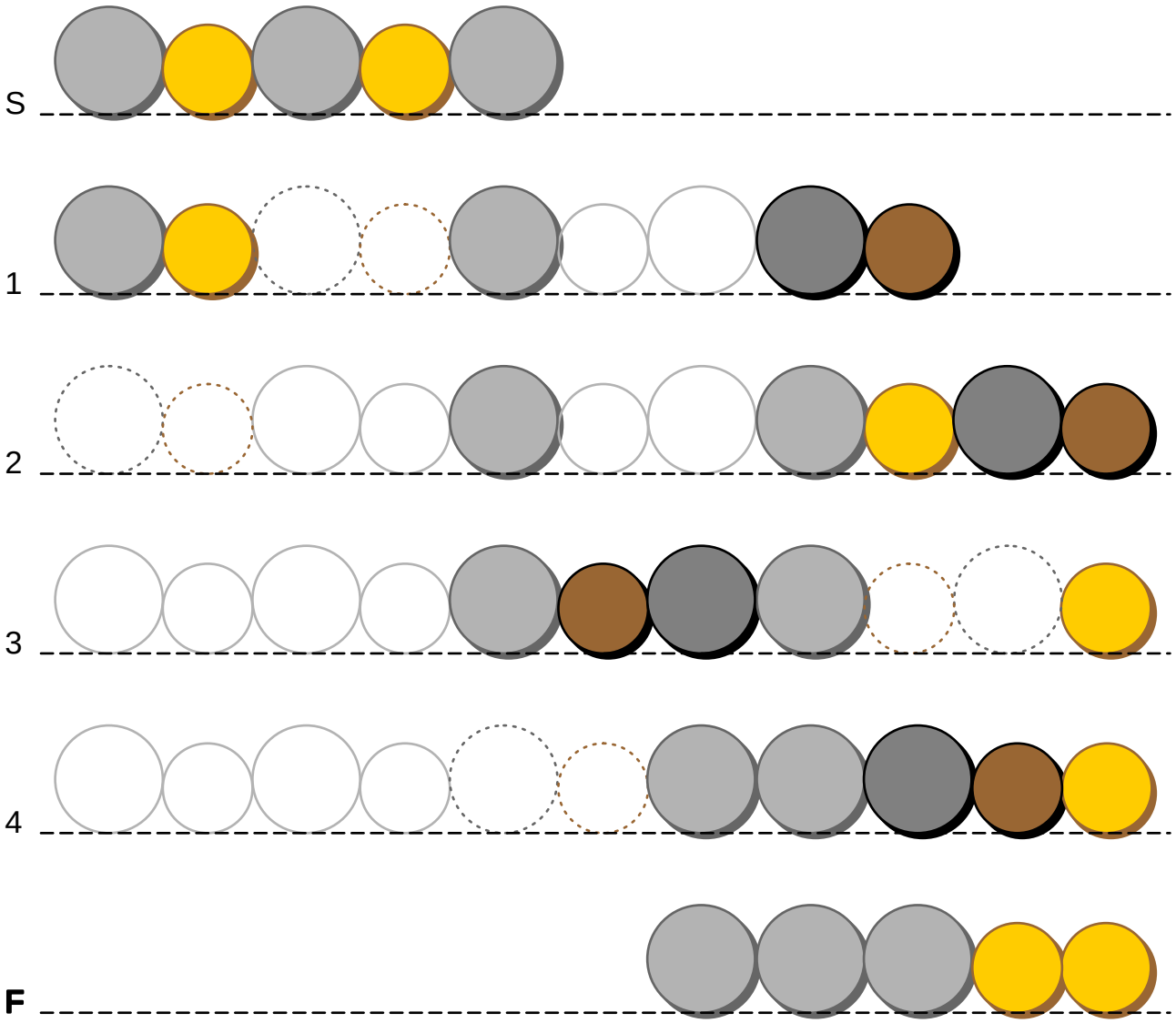


F

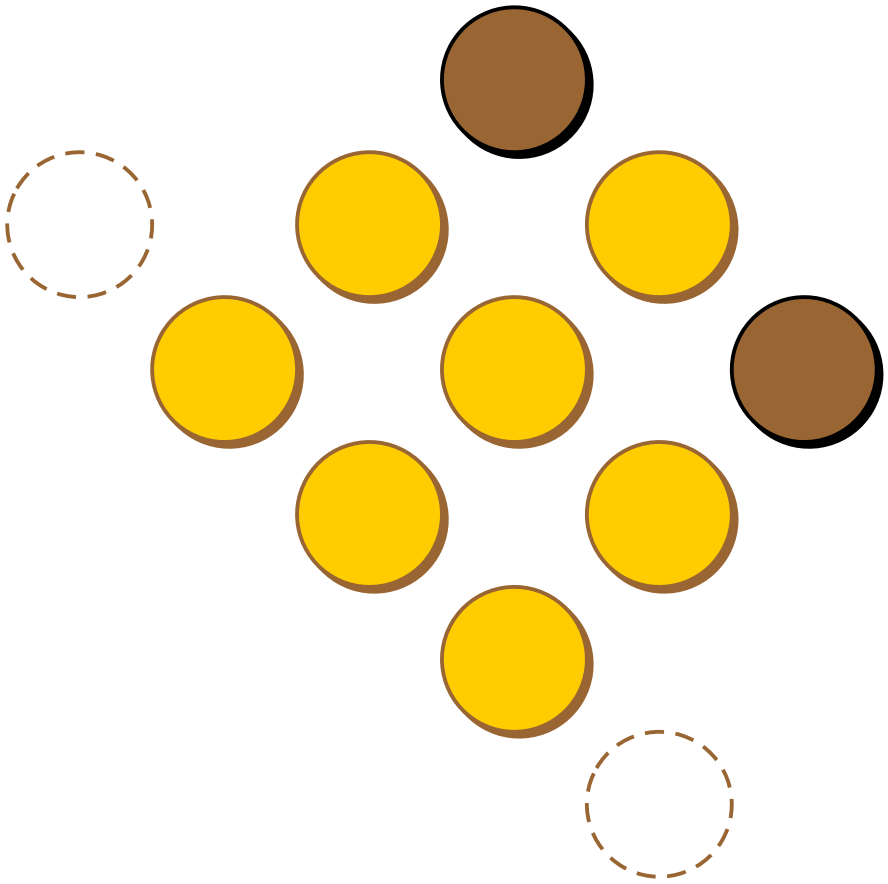
The solution is shown in the illustration.



One of the two symmetric solutions is shown in the illustration.



This puzzle can be solved in four moves as shown above.



The two coin solution is shown in the illustration.