

## Tower of Brahma

**What to do:** Move the tower of discs from one end peg to the other in as few moves as possible.

### HOW TO DO IT

A simplified version of the mythical Tower of Brahma (sometimes called the Tower of Hanoi). According to legend, when the god Brahma created the Earth he made sixty four golden discs of different sizes and placed them, largest first, on a diamond peg. Two more pegs were placed alongside and the temple priests were charged with the task of transferring all the discs to another peg. They could move only one disc at a time and were not allowed to place a larger disc upon a smaller one. The completion of the task would herald the end of the Universe.

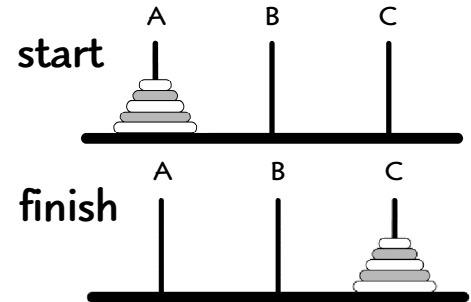
You have a simple task: to move five discs from one end peg to the other, following the same rules.

#### TECHNIQUE

You need to remember two things. All other moves follow automatically..

1. Move the smallest disc every other turn.
2. Always move the smallest disc in the same direction: A-B-C-A-B-C-

Notice how odd-numbered discs move A-B-C-, while even ones move C-B-A-.



#### HOW MANY MOVES?

One disc can be transferred in a single move. Two discs - 3 moves. Three discs - 7 moves. Four discs - 15 moves. Five discs - 31 moves. Six discs - 63 moves (not shown).

The number of moves roughly doubles for each extra disc. The temple priests would need to make about 18,000,000,000,000,000 moves! If the legend is true, the end of the Universe is a long way away.

