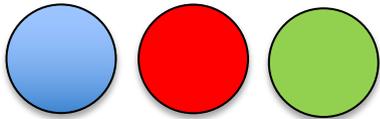
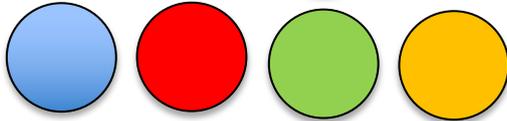


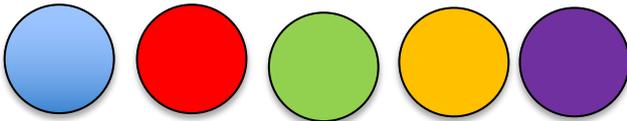
## PERMUTATION PUZZLE



How many different ways can you arrange 3 counters in a row.



Now try 4 counters.



What about 5 counters or more?

Can you see a pattern?

You can use counters or cut out pieces of paper or card.



## HELP

How many ways can you place the first counter?

What about the second counter?

How many arrangements is that for 2 counters?

How many ways can you place the third counter?

How many arrangements is that for 3 counters?

Can you carry this process on?

## NEXT

Can you discover a formula for the number of arrangements, otherwise called *permutations*, for  $n$  counters in a row?