

# COUNTDOWN Challenge

## Factorials: Olympic Rings

Let's have some fun with the Olympic Rings! How many different arrangements (also called permutations) can be made by changing the order of the five rings? To get this answer, we calculate  $5! = 5 \times 4 \times 3 \times 2 \times 1$ . Now try your hand at calculating  $4!$ . Do you understand why the answer is 24? Below, we have colored in one ring. Using red, blue, yellow and green, fill in these 24 different *permutations* below. When you're finished, circle the one set of rings which is the arrangement of colors used for the Olympics.

