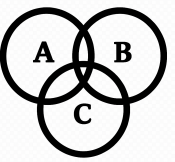
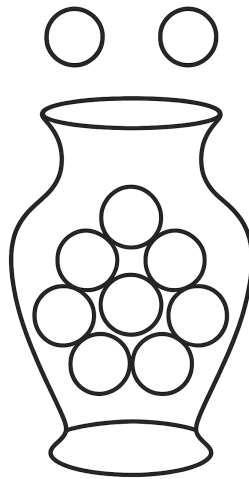
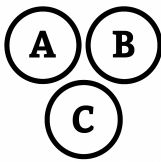


# Combinations



$$m = 10$$

$$n = 2$$

$$\binom{m}{n} = \frac{m!}{n!(m-n)!} = \frac{10!}{2!(10-2)!} = \frac{10 \times 9}{2} = 45$$



$$m = 10$$

$$n = 5$$

$$\binom{m}{n} = ?$$

# Combinations



$$m = 10$$

$$n = 5$$

$$\binom{m}{n} = \frac{m!}{n!(m-n)!} = \frac{10!}{5!(10-5)!} = \frac{10 \times 9 \times 8 \times 7 \times 6}{5 \times 4 \times 3 \times 2 \times 1} = 252$$