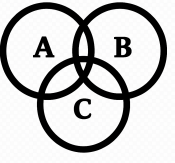
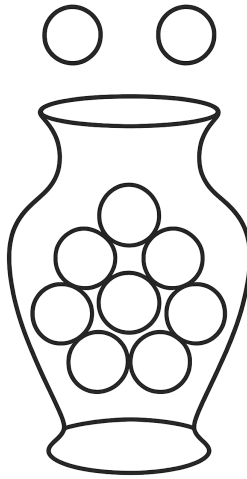
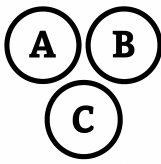


H

Combinations

H



$$m = 10$$

$$n = 2$$

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

?

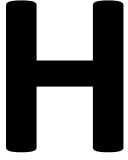
$$m = 22$$

$$n = 3$$

$$a = 24$$

$$b = 3$$

$$\binom{m}{n} \times \binom{a}{b} = ?$$



Combinations



$$m = 22$$

$$n = 3$$

$$a = 24$$

$$b = 3$$

$$\binom{m}{n} \times \binom{a}{b} = \frac{m!}{n!(m-n)!} \times \frac{a!}{b!(a-b)!} =$$

$$\frac{22!}{3!(22-3)!} \times \frac{24!}{3!(24-3)!} = \frac{22 \times 21 \times 20}{3 \times 2 \times 1} \times \frac{24 \times 23 \times 22}{3 \times 2 \times 1}$$

$$= 1,540 \times 2,024 = 3,116,960$$