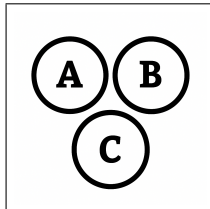


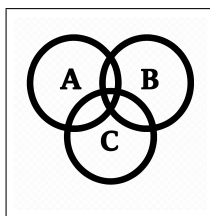
C

Bernoulli Trials

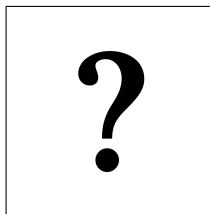
C



$$n = 2$$
$$p = 0.50$$
$$k = 1$$



$$P(X = k) = \binom{n}{k} (p)^k (1 - p)^{n-k}$$
$$P(X = 1) = \binom{2}{1} (0.50)^1 (0.50)^1$$
$$P(X = 1) = 2 \times 0.50 \times 0.50$$
$$P(X = 1) = \boxed{0.50}$$



$$n = 3$$
$$p = 0.5$$
$$P(X = 0) = ?$$
$$P(X = 1) = ?$$
$$P(X = 2) = ?$$
$$P(X = 3) = ?$$

C

Bernoulli Trials

C



$$n = 3$$

$$p = 0.5$$

$$P(X = 0) = ?$$

$$P(X = 1) = ?$$

$$P(X = 2) = ?$$

$$P(X = 3) = ?$$

$$P(X = k) = \binom{3}{k} (0.5)^k (0.5)^{3-k}$$

$$P(X = 0) = \binom{3}{0} (0.5)^0 (0.5)^3 = 1/8$$

$$P(X = 1) = \binom{3}{1} (0.5)^1 (0.5)^2 = 3/8$$

$$P(X = 2) = \binom{3}{2} (0.5)^2 (0.5)^1 = 3/8$$

$$P(X = 3) = \binom{3}{3} (0.5)^3 (0.5)^0 = 1/8$$