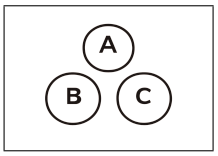
# E Expected Value & Variance Binomial Distribution E




$n = 6$

$p = \frac{1}{2}$

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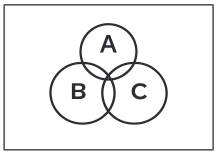


$E[X] = np = 6 \cdot \frac{1}{2} = \boxed{3}$

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$\text{Var}(X) = np(1-p) = 3 \cdot \frac{1}{2} = \boxed{\frac{3}{2}}$

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$E[X^2] = \text{Var}(X) + (E[X])^2$

$E[X^2] = \frac{3}{2} + 3^2$

$E[X^2] = \frac{3}{2} + 9$

$E[X^2] = \boxed{\frac{21}{2}}$

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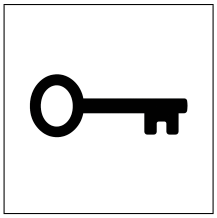
$n = 3$

$p = 0.25$

$E[X] = ?$

$Var(X) = ?$

# Expected Value & Variance Binomial Distribution



$n = 3$
$p = 0.25$
$E[X] = ?$
$Var(X) = ?$

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$E[X] = np = 3 \times 0.25 = \boxed{0.75}$

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$Var(X) = np(1-p) = 3 \times 0.25 \times 0.75 = \boxed{0.5625}$