

3

$$EX = p$$

$$\text{Var } X = p(1-p)$$

$$E \hat{p}_1 = \frac{1}{n} \sum^n E x_i = \frac{np}{n}$$

$$\text{Var } X = EX^2 - (EX)^2$$

x_i	0	1
$P(X=x_i)$	$1-p$	p

x_i^2	0	1
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$P(X=x_i^2)$	$1-p$	p
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EX^2	p
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