THE AUTHOR

1. ESTIMATION

Solution 1.5-1
The point estimate is $\bar{X} = 3.38$.

Solution 1.5-2
$SE = \frac{s}{\sqrt{n}} = \frac{0.30}{\sqrt{100}} = 0.03$

Solution 1.5-3

$$CV = t_{99,0.025}$$
$$CV = 1.980$$

Solution 1.5-4

$$SE = \frac{.3}{\sqrt{100}} = 0.03$$
$$ME = t_{99,0.025} \times SE = 1.980 \times 0.03 = 0.0594$$

Solution 1.5-5

$$CI = \bar{X} \pm ME = 3.38 \pm 0.0595$$
$$CI = (3.38 - 0.0595, 3.38 + 0.0595)$$
$$CI = (3.32, 3.44)$$

Solution 1.5-6
$p = \frac{30}{100} = 0.3$

Solution 1.5-7

$$SE = \sqrt{\frac{.3(1-.3)}{100}}$$
$$SE = 0.0458$$

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Solution 1.5-8

$$CV = z_{0.01/2} = z_{0.005}$$
$$CV = 2.58$$

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Solution 1.5-9
$ME = (CV)(SE) = 2.58 \times 0.0458 = 01182$

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Solution 1.5-10
0.30 ± 0.118