

**Homework Solutions**  
**Chapter 9 – Page 595**

**Exercise 21**

(a) The point estimate is  $\hat{p} = 0.70$ . The 95% confidence interval for  $p$  is

$$\begin{aligned}\hat{p} \pm z \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}} &= 0.70 \pm 1.960 \sqrt{\frac{(0.70)(0.30)}{780}} \\ &= 0.70 \pm 0.0322.\end{aligned}$$

(b)  $p$  represents the proportion of *all* operating vehicles that are equipped with air bags.