

Tests of Hypothesis: One Sample

8.2 Critical Values for the Rejection Region

For the problems below, use the given information to find the critical value(s) used to test the claim:

- a. *Claim* : $\mu > 14.8$
 $\alpha = 0.10$
- b. *Claim* : $\mu < 26$
 $\alpha = 0.025$
- c. *Claim* : $\mu \geq 100$
 $\alpha = 0.01$
- d. *Claim* : $\mu = 75.1$
 $\alpha = 0.01$
- e. *Claim* : $\mu > 36$
 $\alpha = 0.02$

Answers:

- a. $Z_{\alpha/2} = 1.282$
- b. $Z_{\alpha/2} = -1.960$
- c. $Z_{\alpha/2} = -2.326$
- d. $Z_{\alpha/2} = \pm 2.576$
- e. $Z_{\alpha/2} = 2.05$ *We have to use the z-chart for this one.