

Hw 8 A

Section 8.1 exercises.

13-16, p 342.

Section 8.2 exercises p 362-364..

23-24, 29-30, 51, 57.

Solutions:

13. Left tailed.

14. Right tailed.

15. Two tailed.

16. Two tailed.

23. p-value

24. null

29. True

30. True.

51. $H_0 : \mu = 20.8$

$H_1 : \mu > 20.8$

$$z = \frac{23-20.8}{8/\sqrt{100}} = 2.75$$

$$\text{P-value} = P(z > 2.75) = 0.003.$$

Reject H_0 .

57. a). $H_0 : \mu = 260.7$,

$H_1 : \mu \neq 260.7$

$$z = \frac{290.5-260.7}{150/\sqrt{50}} = 1.40,$$

$$\text{P-value} = 2 P(z > 1.40) = 2 * 0.0808 = 0.1616.$$

Do not reject H_0 .

b). The boxplot shows the data is heavily skewed to the right with two outliers.

c. $n = 50 > 30$.