Answer Key pg 412

6. Robust **1.** Decreases **2.** False 3. α **4.** True **5.** False **7.** 1.316, 1.697, -2.552, 1.725 8. 2.205, 1.309, -1.943, 2.120 9. No **10.** No **11.** No 12. No **13.** Yes **14.** Yes **15.** 21, 3 **16.** 25, 5 **18.** 25, 10 **17.** 14, 9

**19.**  $104 < \mu < 112$ ,  $100 < \mu < 116$  increases,  $105 < \mu < 111$  decreases, No – We would need to check a normal probability plot to see if data was normal and then check a box plot for outliers

**22.**  $32.8 < \mu < 37.4$ ,  $33.7 < \mu < 36.5$  decreases,  $31.8 < \mu < 38.4$ , Population must be normal with no outliers

23. (b) is correct

**25.** We are 90% confident that the mean drive through service time at all Taco Bell restaurants was between 161.5 seconds and 164.7 seconds.

**30a**. The sample size should be increase such that  $n \ge 30$  **b**.  $1001 \le 0.05(200 \text{ mil})$ 

<b>c.</b> 1.18 < μ < 1.2	6 <b>d.</b> N	10		
<b>31.</b> 12.0 < μ < 14.8	3 <b>32.</b> 17.2 <	μ < 20.4, yes	<b>37</b> . 16	12.4 < µ < 2667.4
<b>40a</b> . 5.430 million	<b>b.</b> 4.956	< µ <5.904	<b>c.</b> 5.29	98 < μ < 6.322
<b>45.</b> 298 <i>,</i> 173	<b>46.</b> 188, 267	<b>47.</b> 67, 265, 4x	, 115	<b>48.</b> 55, 217, 4x, 39