1) Find the critical value $z_{\alpha/2}$ needed to construct a(n) 80% confidence interval. 1) _____

A) 1.08 B) 2.10 C) 1.28 D) 0.84

2) A study of 55 apple trees showed that the average number of apples per tree was 725. The standard deviation of the population is 100. Which of the following is the 80% confidence interval for the mean number of apples per tree for all trees? 2) _____

A) $708 < \mu < 742$ B) $712 < \mu < 738$ C) $716 < \mu < 734$ D) $705 < \mu < 745$

3) A college admissions officer takes a simple random sample of 80 entering freshmen and computes their mean mathematics SAT score to be 455. Assume the population standard deviation is $\sigma = 113$. 3) _____

Construct a 95% confidence interval for the mean mathematics SAT score for the entering freshmen class.

A) $430 < \mu < 480$ B) $453 < \mu < 457$ C) $440 < \mu < 470$ D) $342 < \mu < 568$

4) The three confidence intervals below were constructed from the same sample. One of them was computed at a confidence level of 90%, another at a confidence level of 95%, and another at a confidence level of 98%. 4) _____

Which is the confidence level at 98%?

A) $38.6 < \mu < 43.4$ B) $38.2 < \mu < 43.8$

C) $39.0 < \mu < 43.0$ D) cannot be determined

5) A random sample of 9 TI-89 Titanium calculators being sold over the internet had the following prices, in dollars. 5) _____

153	146	141	161	144
152	139	154	128	

Assume the population standard deviation is $\sigma = 27$ and that the population is approximately normal. Construct a 90% confidence interval for the mean price for all the TI-89's being sold over the internet.

A) $140.9 < \mu < 152.0$ B) $102.0 < \mu < 190.9$

C) $141.1 < \mu < 151.8$ D) $131.6 < \mu < 161.2$

6) The prices (in dollars) for a graphing calculator are shown below for 8 online vendors. Estimate the true mean price for this particular calculator with 95% confidence. Assume the population standard deviation is $\sigma = 32$ 6) _____

130	157	124	124
145	136	126	144

A) $127.7 < \mu < 143.8$ B) $113.6 < \mu < 157.9$

Answer Key
Testname: PRACTICE19

1) C
2) A
3) A
4) B
5) D
6) B