Practice worksheet | Sampling and confidence intervals

Confidence intervals for a population mean

Name: _____ Date: _____

6 questions | 13 marks

1. A normal population has known SD 12. A sample of 36 has mean 80. Find a 95% interval. [2 marks]

2. For mean 18.5, known SD 4 and n = 64, use 1.645 for a 90% interval. [2 marks]

3. An interval is (12.2, 15.8). Recover its centre and margin. [2 marks]

4. A known-spread normal interval uses n = 6 from a strongly skewed population. What is the concern? [2 marks]

5. A mean estimate is 250 with standard error 2.5. Use 2.576 for a 99% interval. [2 marks]

6. A large independent random sample has n = 144, mean 48.2 and sample standard deviation 12. Population spread is unknown. Use an approximate 95% normal interval for the mean. [3 marks]