Practice worksheet | Continuous probability and normal distributions

Sampling variation and distributions of sample means

Name: _____ Date: _____

6 questions | 12 marks

1. A population has SD 15. Find the standard error for $n = 25$ independent observations. [2 marks]

2. A population has mean 42. What is the mean of the sampling distribution of a random sample mean? [2 marks]

3. Is the mean of 4 normal observations exactly normal or only approximately normal? [2 marks]

4. Why may a sample of 30 be insufficient for a very skewed population? [2 marks]

5. A sample mean has SE 2 at $n = 100$. What is its SE at $n = 25$ with the same population SD? [2 marks]

6. A website surveys only volunteers. Would increasing its sample from 500 to 5000 remove self-selection bias? [2 marks]