

Attendance Quiz 12

Name: _____ Date: _____

1. A population consists of these values: 2, 3, 6, 8, 11, 18.

(a) Find μ and σ .

(b) List all samples of size $n = 2$ that can be obtained **without replacement**.

(c) Find the population of all values of \bar{x} by finding the mean of each sample from part (b).

(d) Find the mean $\mu_{\bar{x}}$ and standard deviation $\sigma_{\bar{x}}$ for the population of sample means found in part (c).

(e) Verify that

$$\mu_{\bar{x}} = \mu \quad \text{and} \quad \sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$$