**1.**

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**2.** An orange-juice processing plant receives a truckload of oranges. The quality control team randomly chooses three pails of oranges, each containing 50 oranges, from the truckload. Identify the sample and the population in the given scenario.

State *one* conclusion that the quality control team could make about the population if 5% of the sample was found to be unsatisfactory.

**3.** Which statement about statistical analysis is false?

(1) Experiments can suggest patterns and relationships in data.

(2) Experiments can determine cause and effect relationships.

(3) Observational studies can determine cause and effect relationships.

(4) Observational studies can suggest patterns and relationships in data.

**4.**

****

**5.** In 2013, approximately 1.6 million students took the Critical Reading portion of the SAT exam. The mean score, the modal score, and the standard deviation were calculated to be 496, 430, and 115, respectively.

Which interval reflects 95% of the Critical Reading scores?

(1) 430 115 (3) 496 115

(2) 430 230 (4) 496 230