

1. The empirical rule says that approximately what percentage of the values would be within 2 standard deviations of the mean in a bell shaped set of data?

**a) 95.5%**

b) 68.3%

c) 86.7%

d) 99.7%

2. A statistics student made the following grades on 5 tests: 84, 78, 88, 78, and 72. What is the mean, median, and mode grade?

a) 78 - 80 - 78

**b) 80 - 78 - 78**

c) 72 - 88 - 84

d) 84 - 82 - 72

3. A commuter travels many miles to work each morning. She has timed this trip 5 times during the last month. The time (in minutes) required to make this trip was 44, 39, 41, 35, and 41. What is the standard deviation for this sample data?

**a) 3.32**

b) 2.97

c) 1.73

d) 11

4. The average starting salary for graduates at a university is \$5,000 with a standard deviation of \$500. If a histogram of the data shows that it takes on a mound shape, the empirical rule says that approximately 95.5% of the graduates would have a starting salary between \_\_\_\_\_.

a) \$4,500 and \$5,500

b) \$5,000 and \$5,500

**c) \$4,000 and \$6,000**

d) \$3,500 and \$6,500

5. Jessica Salas, president of Salas Products, is reviewing the warranty policy for her company's new model of automobile batteries. Life tests performed on a sample of 100 batteries indicated: (1) an average life of 75 months, (2) a standard deviation of 5 months, and (3) a bell shaped battery life distribution. What percentage of the batteries will fail within the first 65 months of use?

a) 0.5%

b) 1%

**c) 2.5%**

d) 5%