Algebra 2CP
Chapter 12 Statistics YOU CAN…

❖ **Find the variance and standard deviation of each set of data**

1. {1, 1, 1, 2, 4}   2. {42, 45, 65, 71, 74, 76, 86}

3.

Stem	Leaf
4	4 8 9
5	0 3 7 7 9
6	0 3 5 6 7

❖ **Find the mean, median, and mode of each set of data**

5. {5, 7, 7, 8, 9, 12, 14}   6. {30, 32, 32, 33, 34, 37, 39}

❖ **Choose of measure of central tendency**

7. A professor records the following scores for a 100-point exam.
            99, 64, 80, 77, 59, 72, 87, 79, 92, 88
            90, 42, 20, 89, 42, 100, 98, 84, 78, 91

    Which measure of central tendency best describes these test scores?

8. A salesman sold eight pairs of men's black dress shoes. The sizes of the eight pairs were as follows:
            10.5, 8, 12, 10.5, 10, 9.5, 11, and 10.5

    Which measure (or measures) of central tendency best describes the typical shoe size for this data?

❖ **Use normal distributions**

9. The diameters of metal fittings made by a machine are normally distributed. The diameters have a mean of 7.5 centimeters and a standard deviation of 0.5 centimeters.
         a) What percent of fittings have diameters between 7.0 and 8.0 centimeters?
         b) What percent of the fittings have diameters between 7.5 and 8.0 centimeters?
         c) What percent of the fittings have diameters greater than 6.5 centimeters?
         d) Of 100 fittings, how many will have a diameter between 6.0 and 8.5 centimeters?

10. A college entrance exam was administered at a state university. The scores were normally distributed with a mean of 510, and a standard deviation of 80.
         a) What percent would you expect to score above 510?
         b) What percent would you expect to score between 430 and 590?
         c) What is the probability that a student chosen at random scored between 350 and 670?

ALSO…

❖ **Don't forget to look over positively skewed, negatively skewed, and normal distribution curves!**