

## Self-Check 2.5, 2.6, 2.7

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### Self-Check 2.5, 2.6, 2.7

1. The following data show the number of months patients typically wait on a transplant list before getting surgery. The data are ordered from smallest to largest.

3; 4; 5; 7; 7; 7; 8; 8; 9; 9; 10; 10; 10; 10; 10; 11; 12; 12; 13; 14; 14; 15; 15; 17; 17; 18; 19; 19; 19; 21; 21; 22; 22; 23; 24; 24; 24; 24

a. Calculate the mean.

b. Identify the median.

c. Identify the mode.

d. Calculate the standard deviation.

e. Calculate the variance.

2. In a sample of 60 households, one house is worth \$2,500,000. Half of the rest are worth \$280,000, and all the others are worth \$315,000. Which is the better measure of the “center”: the mean or the median?

3. Maris conducted a study on the effect that playing video games has on memory recall. As part of her study, she compiled the following data:

Hours Teenagers Spend on Video Games	Number of Teenagers
0.0-4.4	3
4.5-8.9	7
9.0-13.4	12
13.5-17.9	7
18-22.4	9

a. What is the best estimate for the mean number of hours spent playing video games?

b. What is the standard deviation and variance?

4. On a baseball team, the ages of each of the players are as follows:

21; 21; 22; 23; 24; 24; 25; 25; 28; 29; 29; 31; 32; 33; 33; 34; 35; 36; 36; 36; 36; 38; 38; 40

a. Use your calculator or computer to find the mean and standard deviation.

b. Find the value that is two standard deviations above the mean.

c. Find the value that is one standard deviations below the mean.

5. Two swimmers, Angie and Beth, from different teams, wanted to find out who had the fastest time for the 50 meter freestyle when compared to her team. Which swimmer had the fastest time when compared to her team?

Swimmer	Time (seconds)	Team Mean Time	Team Standard Deviation
Angie	26.2	27.2	0.8
Beth	27.3	30.1	1.4

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