Another measure of variability is the *mean absolute deviation*. The **mean absolute deviation (MAD)** is the mean distance between each data value and the mean of the data set.

3 EXAMPLE Mean Absolute Deviation

Find the MAD for the data sets in 1.

A 60, 58, 54, 56, 63, 61, 65, 61, 62, 59, 56, 58

Step 1 Find the mean. Round to the nearest whole number.

$\frac{\square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square}{\square} \approx \square$

Step 2 Complete the table.

Height	60	58	54	56	63	61	65	61	62	59	56	58
Distance from Mean												

Step 3 To calculate the MAD, find the mean of the values in the second row of the table. Round to the nearest whole number.

$\frac{\square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square}{\square} \approx \square$

B 46, 47, 48, 48, 56, 48, 46, 52, 57, 52, 45

Step 1 Find the mean. Round to the nearest whole number.

$\frac{\square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square}{\square} \approx \square$

Step 2 Complete the table.

Height	46	47	48	48	56	48	46	52	57	52	45
Distance from Mean											

Step 3 To calculate the MAD, find the mean of the values in the second row of the table. Round to the nearest whole number.

$\frac{\square + \square + \square + \square + \square + \square + \square + \square + \square + \square + \square}{\square} \approx \square$

REFLECT

3. Compare the MADs. How do the MADs describe the distribution of the heights in each group?