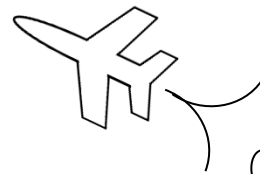# Math on the Fly!

NAME: _____   DATE: _____

Effects of Changes on Data Sets

A set contains ten *different* numbers.

In each problem, a change is made to the original set of numbers.

Determine after the change if the mean, median, range and standard deviation will get bigger, get smaller, or stay the same.

1.   Add 8 to every number in the set.

2.   Subtract 5 to every number in the set.

3.   Add 9 to the biggest number in the set.

4.   Subtract 7 from the smallest number in the set.

5.   Remove only the smallest number in the set.

6.   Remove only the biggest number in the set.

SOLUTIONS

1.
Mean → Gets bigger
Median → Gets bigger
Range → Stays the same
Std. Deviation → Stays the same

2.
Mean → Gets smaller
Median → Gets smaller
Range → Stays the same
Std. Deviation → Stays the same

3.
Mean → Gets bigger
Median → Stays the same
Range → Gets bigger
Std. Deviation → Gets bigger

4.
Mean → Gets smaller
Median → Stays the same
Range → Gets bigger
Std. Deviation → Gets bigger

5.
Mean → Gets bigger
Median → Gets bigger
Range → Gets smaller
Std. Deviation → Gets smaller

6.
Mean → Gets smaller
Median → Gets smaller
Range → Gets smaller
Std. Deviation → Gets smaller