## What Makes the Standard Deviation Larger or Smaller?

You will find 15 pairs of graphs on the next four pages. The mean for each graph $(\mu)$ is given just above each histogram. For each pair of graphs presented below

1. Indicate whether one of the graphs has a larger standard deviation than the other or if the two graphs have the same standard deviation.
2. Try to identify the characteristics of the graphs that make the standard deviation larger or smaller.

You can check your answers against the instructor's answer key as you complete each page.
1.

2.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
3.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
4.

5.

6.


A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
7.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
8.


A has a larger standard deviation than $B$
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
9.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
10.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
11.


A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
12.


A has a larger standard deviation than $B$
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
13.



A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
14.


A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation
15.


A has a larger standard deviation than B
$B$ has a larger standard deviation than A

Both graphs have the same standard deviation

