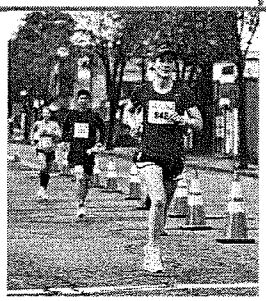
Name: Connecting Algebra and Geometry | 7.5

Ready, Set, Go!

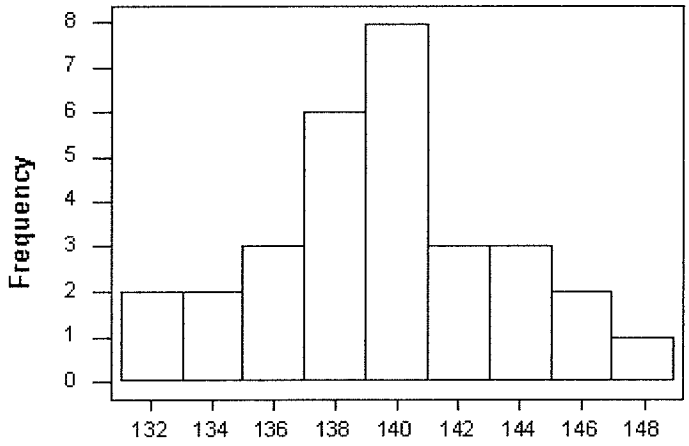


http://www.flickr.com/photos/pdgoodman

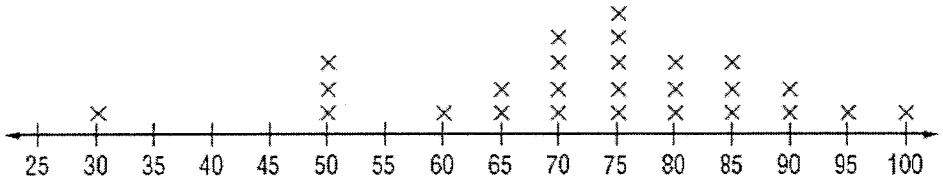
Ready

Topic: Identifying spread.

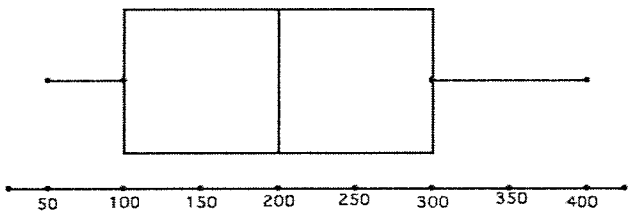
1. Describe the spread in the histogram below.



2. Describe the spread in the line plot below.



3. Describe the spread in the box and whisker plot.



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Set

You are given information about $f(x)$ and $g(x)$. Rewrite $g(x)$ in translation form: $g(x) = f(x) + k$)

4. $f(x) = 7x + 13$
$g(x) = 7x - 5$

$g(x) =$ _____
Translation form

5. $f(x) = 22x - 12$
$g(x) = 22x + 213$

$g(x) =$ _____
Translation form

6. $f(x) = -15x + 305$
$g(x) = -15x - 11$

$g(x) =$ _____
Translation form

7.

x	f(x)	g(x)
3	11	26
10	46	61
25	121	136
40	196	211

$g(x) =$ _____
Translation form

8.

x	f(x)	g(x)
-4	5	-42
-1	-1	-48
5	-13	-60
20	-43	-90

$g(x) =$ _____
Translation form

9.

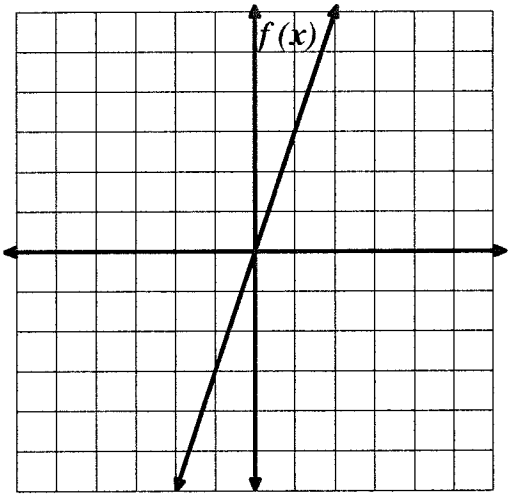
x	f(x)	g(x)
-10	4	-15.5
-3	7.5	-12
22	20	0.5
41	29.5	10

$g(x) =$ _____
Translation form

Go

Topic: Vertical and horizontal translations

10. Use the graph of $f(x) = 3x$ to answer the following questions.



a. Sketch the graph of $g(x) = 3x - 2$ on the same grid.

b. Sketch the graph of $h(x) = 3(x - 2)$.

c. Describe how $f(x)$, $g(x)$, and $h(x)$ are different and how they are the same.

d. Explain in what way the parentheses affect the graph. Why do you think this is so?