Name _____ Class _____ Date _____

Reteaching 12-2 Box-and-Whisker Plots

Make a box-and-whisker plot for the data set.

Percent of Federally Owned Land in Ten Western States				
45%	24%	52%	61%	28%
42%	34%	48%	63%	36%

Step 1: First list the data in order from least to greatest. Find the median.

24 28 34 36 42 | 45 48 52 61 63

Since there is an even number of percents (10), there are two middle numbers. Add them and divide by 2.

$\frac{42 + 45}{2} = \frac{87}{2} = 43.5$ The median is 43.5.

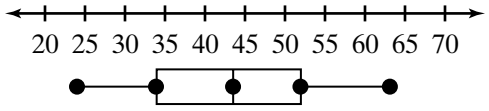
Step 2: Find the upper and lower quartiles.

The lower quartile is the median of the lower half. 24 28 [34] 36 42
The lower quartile is 34.

The upper quartile is the median of the upper half. 45 48 [52] 61 63
The upper quartile is 52.

Step 3: Draw a number line. Mark the least and greatest values, the median, and the quartiles. Draw a box from the first to the third quartiles. Draw whiskers from the least and greatest values to the box.

The data range from 24 to 63. A scale of 5 from 20 to 70 would have 11 marks.



Make a box-and-whisker plot for each data set.

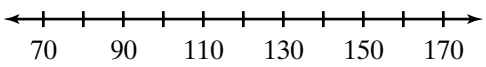
1. Area in 1,000 mi^2 of 13 western states

122	164	71	98	84	147	114
111	98	85	104	71	77	

median: _____

lower quartile: _____

upper quartile: _____



2. Percent of area that is inland water for 11 northeastern states.

13%	4%	26%	4%	32%	13%	
15%	3%	21%	7%	21%		

median: _____

lower quartile: _____

upper quartile: _____