Name_____ Date_____

10 + – Box-and-Whisker Plots

Do all work in your notebooks or on a separate piece of paper.

Find the median, first quartile, third quartile, and interquartile range of the data.

1. 40, 33, 37, 54, 41, 34, 27, 39, 35

2. 84, 75, 90, 87, 99, 91, 85, 88, 76, 92, 94

3. 132, 127, 106, 140, 158, 135, 129, 138

4. 38, 55, 61, 56, 46, 67, 59, 75, 65, 58

5. **PAPER AIRPLANE** The table shows the distances traveled by a paper airplane. Find and interpret the range and the interquartile range of the distances.

Distances (feet)			
$13\frac{1}{2}$	$21\frac{1}{2}$	21	$16\frac{3}{4}$
$10\frac{1}{4}$	19	32	$26\frac{1}{2}$
29	$16\frac{1}{4}$	$28\frac{1}{2}$	$18\frac{1}{2}$

6. **BASKETBALL** The table shows the numbers of points scored by players on a basketball team.

Points Scored					
21	53	74	82	84	93
103	108	116	122	193	

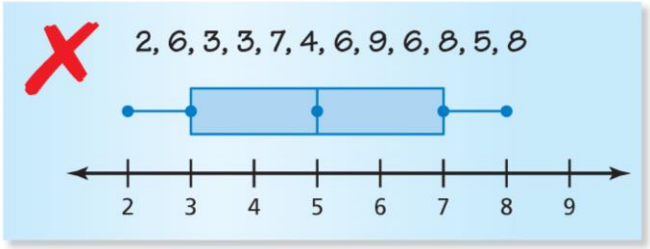
a. Find the range and the interquartile range of the data.

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

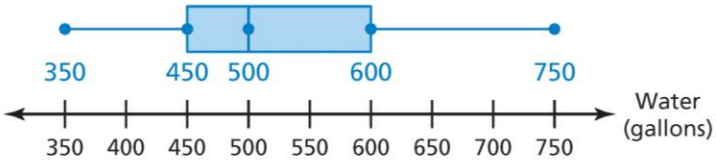
7. Ages of teachers (in years): 30, 62, 26, 35, 45, 22, 49, 32, 28, 50, 42, 35

8. Donations (in dollars): 10, 30, 5, 15, 50, 25, 5, 20, 15, 35, 10, 30, 20

9. **ERROR ANALYSIS** Describe and correct the error in making a box-and-whisker plot for the data.



10. DUNK TANK The box-and-whisker plot represents the numbers of gallons of water needed to fill different types of dunk tanks offered by a company.



a. What fraction of the dunk tanks require at least 500 gallons of water?

b. Are the data more spread out below the first quartile or above the third quartile? Explain.

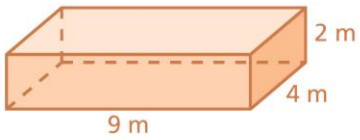
c. Find and interpret the interquartile range of the data.

Find the mean of the data. *(Section 9.2)*

11. 8, 14, 22, 7, 2, 11, 25, 7, 5, 9

12. 55, 64, 58, 43, 49, 67

13. MULTIPLE CHOICE What is the surface area of the rectangular prism? *(Section 8.2)*



Ⓐ $62\ m^2$ Ⓑ $72\ m^2$

Ⓒ $88\ m^2$ Ⓓ $124\ m^2$