Lesson 8.1.1 Homework

8-8. Ms. Whitney has thirteen students who did extra credit assignments to raise their grades. The scores on the assignments were 96, 45, 89, 100, 100, 77, 67, 84, 98, 33, 60, 97, and 100.

    a.   Find the median, and the first and third quartiles.

8-9. Simplify each expression.

    a. $-\frac{4}{5} + \frac{7}{12}$

    b. $\frac{5}{9} + (-\frac{1}{4})$

    c. $-\frac{3}{7} \cdot \frac{11}{12}$

    d. $-1\frac{2}{3} \cdot \frac{4}{5}$

8-10. Solve the equations below for the variable. Be sure to check your answer.

    a. $3(2x - 1) + 2 = 5x$

    b. $600x + 200 = 500x$

8-11. Write an equation to represent this problem and find the unknown side lengths.

A trapezoid has a perimeter of 117 cm. The two shortest sides have the same length. The third side is 12 cm longer than one short side. The final side is 9 cm less than three times one short side. How long is each side of the trapezoid?

8-12. Four pieces of taffy cost 25 cents. Complete the table below.

Taffy (# of pieces)	4	16	8	80	24	32	40
Cost (in dollars)							

8-13. Mrs. Ferguson, your school librarian, asks you to conduct a survey of how many books students read during the year. You get the following results: 12, 24, 10, 32, 12, 4, 35, 10, 8, 12, 15, 20, 18, 25, 21, and 9.

    a.   Use the data to create a histogram. Use a bin width of 10 books. (Remember, if a value falls on the line, place it in the upper bin.)

    b.   Is the mean or median a better measure of the center? Find the value of whichever is more appropriate.

    c.   Make a box plot of the data.

    d.   Describe the center, shape, spread, and outliers of the distribution.

8-18. Roger has a bag of marbles. There are 6 red, 4 blue, 3 white, and 7 green marbles in the bag. If he draws one marble, replaces it, and then draws another, find the following probabilities. Write your answer as a fraction and a percent.

    a.   P(red, red)

    b.   P(not white, green)

    c.   P(blue or white, red)

    d.   Find the answer for part (a) above if Roger does not replace the marble before selecting the second one.