Solve the proportion.                                          Solve.

1. $\dfrac{2}{3} = \dfrac{10}{2x-19}$                           2. $\dfrac{2x+4}{3x-1} = \dfrac{1}{2}$

Simplify.

3. $(45 \div 3 + 23 - 2) \div 4 * 2 + 3^2$                     4. $\dfrac{-4}{3} * \dfrac{18}{-5} * \dfrac{-21}{12}$

Solve the equation.  Use properties of equality to justify each step.

5. $-6(-5x + 6) - 100 = 194$

6. $0.8x + 3.1 - 4.3x = 7.7 - 1.2x$

7. The average person commutes to work at a rate of 2908 centimeters/second. How fast are they traveling in miles/hour?

8. This morning Mr. Sacco filled up his gas tank. The price at the pump was $3.29 per gallon. He then went inside to get his morning coffee. For a 20 oz. coffee he paid $1.29. Write an explanation of what each piece of the following inequality represents in the context of the problem.

$$3.29g + 1.29 \leq 50$$

a. 1.29: _____

b. 3.29: _____

c. 3.29g: _____

d. 50: _____

e. What is the appropriate vocabulary word for 1.29? _____

f. What is the appropriate vocabulary word for 3.29? _____

g. Why is an inequality used in this situation?