To check your answer to an inequality you must check both

- the starting point
  and
- the direction of the "arrow"

Solve this inequality

$9x + 3(x-4) - x \geq -36$

Check your answer

Check the starting point

Test -24/11 to see if both sides are =

Check the direction of the inequality

Test a number greater than -24/11 to see if the left side is greater than the right side.

Sec 4-1: Ratio and Proportion

Rate: the ratio of two quantities that have different units.

Unit Rate: A rate where the denominator is 1

Leonard's last paycheck was for $450 and he worked 40 hours.

1. Use this information to write a Rate.

$\frac{\$450}{40 hrs}$ or $\frac{40 hrs}{\$450}$

2. Write this information as a Unit Rate (include units).

$\$11.25/hr$

Which is a better buy?

4 pounds of hamburger for $11.56

$11.56/4$

$\$2.89/lb$

OR

7 pounds of hamburger for $18.13

$\$18.13/7$

$\$2.59/lb$

This is the better buy since it is cheaper per pound.

Find this product:

$$\frac{2}{3} \cdot \frac{3}{7} \cdot \frac{7}{4} \cdot \frac{4}{9} = \frac{2}{9}$$

Find this product:

$$12 \cdot \frac{576}{576} = 12$$

Find this product:

$$\frac{\text{miles}}{\text{hour}} \cdot \frac{\text{hour}}{\text{min}} \cdot \frac{\text{min}}{\text{sec}} \cdot \frac{\text{ft}}{\text{mile}} \cdot \frac{\text{in}}{\text{ft}} = \frac{\text{in}}{\text{sec}}$$

When you reach your 16th birthday find the number of seconds that you have been living.

504,576,000 seconds

Find each quotient.

$\frac{24}{3 \cdot 8} =$

$\frac{12}{1\ dozen} =$

$\frac{1\ ton}{2000\ lbs} =$

$\frac{36\ inches}{3\ feet} =$

Given: 16 ounces = 454 grams

$\frac{16\ ounces}{454\ grams} =$

These ratios are called CONVERSION FACTORS

$\frac{454\ grams}{16\ ounces} =$

The ratio of two equivalent quantities = 1