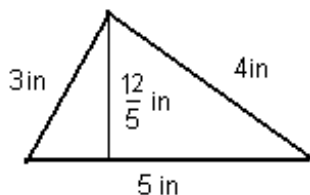


- Use words to write 5 198 040 030. **five billion, one hundred ninety-eight million, forty thousand, thirty**
- Round 5 198 040 030 to the nearest ten million. **5 200 000 000**
- Find the perimeter and area of the triangle shown on the picture.  **$P = 12 \text{ in}$ ,  $A = 6 \text{ in}^2$**



- List all factors of 78. **1, 2, 6, 13, 39, 78**
- Find the average of  $4\frac{2}{5}$ ,  $\frac{-3}{4}$ ,  $7\frac{3}{10}$ ,  $-8$ , and  $1\frac{1}{20}$ .  **$\frac{4}{5}$**
- Find the least common multiple of 180, 96, and 75. **7200**
- Consider the following numbers: 1357, 2001, 2101 620, 6120 504, 30 762.
  - Find all numbers from the list that are divisible by 6. **2101 620, 6120 504, 30 762**
  - Find all numbers from the list that are divisible by 9. **6120 504, 30 762**
  - Find all numbers from the list that are divisible by 15. **2101 620**
- Fractions.
  - Find  $\frac{38}{5}$  of 10. **76**
  - $\frac{3}{5}$  of what number is 48? **80**
  - 24 is what fraction of 40?  **$\frac{3}{5}$**
  - Write  $\frac{3}{8}$  with denominator 48.  **$\frac{18}{48}$**
  - Reduce  $\frac{96}{120}$  to lowest terms.  **$\frac{4}{5}$**
  - Which fraction is larger,  $\frac{3}{5}$  or  $\frac{6}{11}$ ?  **$\frac{3}{5}$**
  - Write  $-13\frac{2}{5}$  as an improper fraction.  **$\frac{67}{5}$**
  - Write  $\frac{81}{11}$  as a mixed number.  **$7\frac{4}{11}$**
- Use one conversion factor (or unit multiplier) to convert each of the following.
  - 38 inches to feet.  **$3\frac{1}{6} \text{ ft}$**
  - 31 hours to minutes. **1860 min**
  - 68 feet to inches. **816 in**

11. Perform the following operations. Do not use a calculator.

$$\text{a) } \frac{1}{3} \left( \frac{1}{2} - 2\frac{1}{3} \right) + \frac{1}{18} = -\frac{5}{9}$$

$$\text{b) } 4\frac{2}{3} \div 1\frac{7}{10} \cdot \frac{-17}{20} = -\frac{7}{3}$$

$$\text{c) } \left( \frac{-2}{3} \right)^2 - 2\frac{2}{3} \cdot \frac{4}{3} = -\frac{28}{9} = -3\frac{1}{9}$$

$$\text{d) } \frac{-[-3 + 4^2 - (4 \cdot 3 - 1)] - (-12) \div (-12)}{(-2) [-3 + (-2)^3 + (-4)^2 - 3]} = \frac{3}{4}$$

$$\text{e) } \frac{-3^2 + (-2)^4 + [(-5)^2 - (-2) \cdot (-11)]^2 + (-1)}{2 [-10 \div (-2) - (-2)^4 \div (-2)^3] + 1} = 1$$

12. Evaluate each of the following expressions.

$$\text{a) } x - 10 \text{ if } x = 4 \quad -6$$

$$\text{c) } a^2 - 2ab + b^2 \text{ if } a = \frac{1}{2} \text{ and } b = \frac{1}{3} \quad \frac{1}{36}$$

$$\text{b) } 10 - x \text{ if } x = 4 \quad 6$$

$$\text{d) } a^2 + 2ab + b^2 \text{ if } a = \frac{1}{2} \text{ and } b = \frac{1}{3} \quad \frac{25}{36}$$

13. Solve each of the following equations. Make sure to check your solution.

$$\text{a) } \frac{1}{3}x - \frac{5}{8} = -\frac{2}{3} \quad -\frac{1}{8}$$

$$\text{b) } 2x - 5 = -13 \quad -4$$

$$\text{c) } 35 - 2y = 23 \quad 6$$