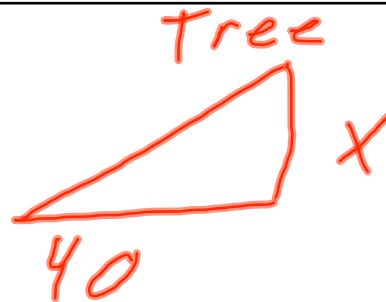
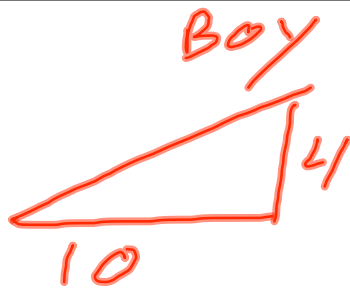


A 4 foot tall boy casts a shadow that is 10 feet long. A tree near the boy has a shadow that is 40 feet long. How tall is the tree?



answer

$$\frac{4}{10} = \frac{x}{40}$$

$$160 = 10x$$

$$x = 16$$

$$\frac{2}{j+3} = \frac{4}{5}$$

$$2(5) = 4(j+3)$$

$$10 = 4j + 12$$

$$-2 = 4j$$

$$-0.5 = j$$

answer

$$\frac{2}{j+3} = \frac{4}{5}$$

$$2 \cdot 5 = 4(j+3)$$

$$10 = 4j + 12$$

$$\frac{10}{-2} = \frac{4j + 12}{-2}$$

$$\frac{-2}{4} = \frac{4j}{4} \quad (j = -.5)$$

You need 3 packages of hot dogs for every 14 people attending the party. 53 people are coming so how many packages of hot dogs do you need?

answer

$$\frac{3 \text{ hot dog}}{14 \text{ people}} = \frac{x \text{ hot dogs}}{53 \text{ people}}$$

$$3 \cdot 53 = 14x$$

$$\frac{159}{14} = \frac{14x}{14}$$

$$= 11.4 \text{ packages}$$

12 packages

37% of what number
is 76?

(answer)

$$\frac{76}{x} = \frac{37}{100}$$

$$7600 = 37x$$

$$x = 205.4$$

$$\frac{-14}{h} = \frac{-2}{5}$$

answer

$$\frac{-14}{h} = \frac{-2}{5}$$

$$5 \cdot -14 = -2h$$

$$\frac{-70}{-2} = \frac{-2}{-2}h$$

$$h = 35$$

I travel 170 miles
in 3 hours. What is
the unit rate?

Answer

$$\frac{170 \text{ mi}}{3 \text{ h}} = \frac{x}{1 \text{ h}}$$

$$\frac{170}{3} = \frac{3x}{1 \text{ h}}$$

$$x = 56.7 \text{ mi}$$

solve:

$$\textcircled{1} 2x - 4 = 10$$

$$\textcircled{2} 4(-2x + 3) = 24$$

$$\textcircled{3} -4x - 9 = -5 - 6x$$

(answer)

$$\textcircled{1} \quad 2x - 4 = 10$$
$$\qquad \qquad +4 \quad +4$$

$$\frac{2}{2}x = \frac{14}{2}$$
$$\textcircled{x = 7}$$

(answer)

$$\textcircled{2} \quad 4(-2x + 3) = 24$$

$$4 \cdot -2x + 4 \cdot 3 = 24$$

$$\begin{array}{r} -8x + 12 = 24 \\ -12 \quad -12 \end{array}$$

$$\frac{-8x}{-8} = \frac{12}{-8}$$

$$x = -1.5$$

$$v - \# = \# - v$$

answer

$$\textcircled{3} \quad -4x - 9 = -5 - 6x$$

$$+9 \quad +9$$

$$\begin{array}{r} v \\ -4x = 4 - v \\ +6x \end{array} \quad \begin{array}{r} \# \\ -6x \\ +6x \end{array}$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

(Convert) | 1 Lb = 16 oz
12 in = 1 foot

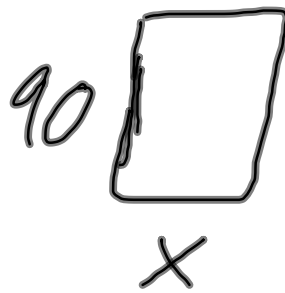
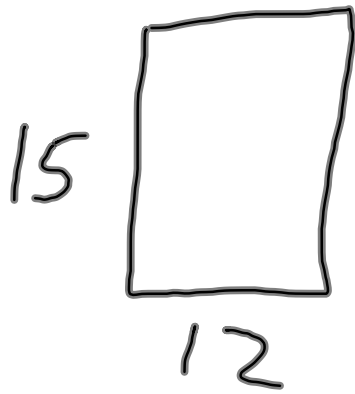
ⓐ 57 oz into Lb

ⓑ 7 feet into inches

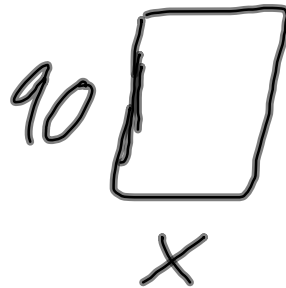
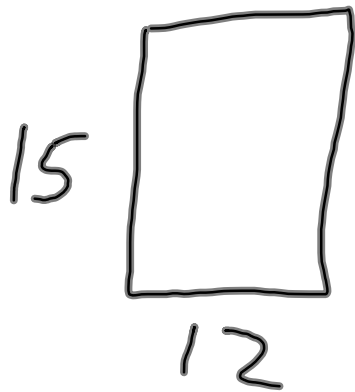
① $\frac{57 \cancel{\text{oz}}}{1} \times \frac{1 \text{ Lb}}{16 \cancel{\text{oz}}} = \frac{57}{16}$ (answer)

$= 3.6 \text{ Lb}$

② $\frac{7 \cancel{\text{ft}}}{1} \times \frac{12 \text{ in}}{1 \cancel{\text{ft}}} = 84 \text{ in}$



answer



$$\frac{15}{12} = \frac{90}{x}$$
$$\frac{15x}{15} = \frac{1080}{15}$$
$$x = 72$$

What is the best deal:
6 calculators for \$73,
2 calculators for \$27.60 or
4 calculators for \$72.40?

answer

$$\frac{\$73}{6} = \frac{x}{1}$$

12.17

$$\frac{27.60}{2} = \frac{x}{1}$$

13.80

$$\frac{72.40}{4} = \frac{x}{1}$$

18.10

The scale on a map is
1 in : 16 miles. How many
miles does 4.2 inches
represent?

(answer)

The scale on a map is

1 in : 16 miles. How many miles does 4.2 inches represent?

$$\frac{1 \text{ in}}{16 \text{ mi}} = \frac{4.2 \text{ in}}{x}$$

$$x = 67.2$$

Sam ran 3 miles
yesterday. Today he ran
5 miles. What was his
percent increase?

(answer)

$$\frac{\text{new} - \text{old}}{\text{old}}$$

$$\text{old} = 3$$

$$\text{new} = 5$$

$$\frac{5 - 3}{3} = \frac{2}{3} = .67$$

67%

$$V = lwhr \quad \text{solve for } r$$

$$2r = ab \quad \text{solve for } a$$

$$\frac{V}{lwh} = \frac{lwhr}{lwh} \quad \text{solve for } r$$

$$\frac{V}{lwh} = r$$

$$\frac{2r}{b} = \frac{ab}{b} \quad \text{solve for } a$$

$$\frac{2r}{b} = a$$