

Chapter 5 section 6
Equations with Decimals

To Solve equation with decimals, one uses the same method as solving with whole numbers.

Example:

To Solve: $x - 1.3 = -2.6$ use the same procedure as solving: $x - 13 = -26$

Solve: $\frac{x}{0.35} = 4.2$ use the same procedure as solving: $\frac{x}{3} = 4$

Solve: $-1.2x = -4.08$ use the same procedure as solving: $2x = 5$

Solve: $-3.8x - 1.7 = -17.28$ same procedure as solving: $-3x - 1 = -17$

Combine like terms.

Simplify: $-3.2x + 1.16x$ same procedure as simplifying $-3x + 2x$

$$4.2 - 3.1x + 2x = -7.02$$

Distributive property

$$-6.3x - 0.4(x - 1.2) = -0.86$$

Round the answer to the nearest tenth.

$$3.1x + 4.6 = 2.5 - 2.2x$$

Area of a rectangle

$$\text{Area} = \text{base} \cdot \text{height}$$

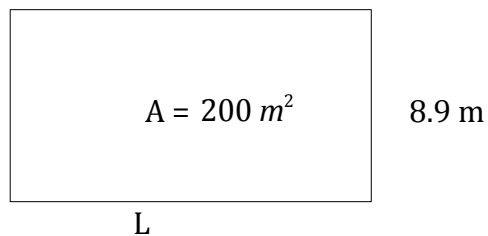
Example 9: page 416

Molly needs to create a rectangular garden plot covering 200 square meters ($200 m^2$). If the width of the plot is 8.9 meters, find the length of the plot correct to then nearest tenth of a meter.

a) Set up a variable dictionary.

Statement: Let L = length of the plot

Draw a diagram to represent the information



b) Set up an equation:

c) Solve the equation

d) Answer the question.

e) Look back (check)

Example 10: page 417

Children's tickets to the circus go o sale for \$6.75. The boys and Girls club of eureka has \$1000 set aside to purchase these tickets. Approximately how many tickets can the Girls and Boys club purchase?

Circle:

Area: πr^2 Circumference: $2\pi r$ or πd