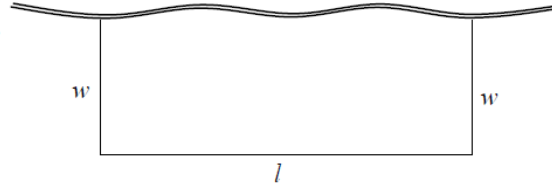


Name: _____
Date: _____
Class: _____

Algebra
Unit 2
HW 2-3

1) A rectangular area is being fenced in along a river that serves as one side of the rectangle.

- (a) Write an equation that relates the amount of fencing, F , needed as a function of the width w and the length l .



- (b) If $w = 12$ feet and $l = 20$ feet, what is the value of F ?

- (c) If we know that the amount of fencing we have available is 120 feet and we want to devote 30 feet to the length, l , then set up an equation to solve for w and find the width.

2) Solve: $\frac{5(x-3)}{8} + 2 = 7$

3) Solve: $3(x-4) - 2(3x+4) = 4(3-x) + 5x + 4$

4) Solve: $\frac{1}{2}(2-6x) - 4\left(x + \frac{3}{2}\right) = -(x-3) + 4$

- 5) Look through the following work, find the mistake, and circle it. Then, to the side, show the appropriate work.

$$\frac{-2(x-3)}{5} = 4$$

$$5 \cdot \frac{-2(x-3)}{5} = 4 \cdot 5$$

$$-2(x-3) = 20$$

$$-2x - 6 = 20$$

$$-2x - 6 + 6 = 20 + 6$$

$$-2x = 26$$

$$\frac{-2x}{-2} = \frac{26}{-2}$$

$$x = -13$$

- 6) Antonio's plan: Monthly cost = $3(.75m + 10) + 2.50m - 15$ where m is the number of minutes used
Marcus's Plan: Monthly cost = $2(1.75m + 12.50) - .75m + 4$ where m is the number of minutes used
By setting their monthly cost equal, decide after how many minutes the two plans will cost the same.

- 7) Solve and check your answer: $8 - 2(w + 4) - 6w = 10 - 6w - (3w - 5)$