

## Math 1 - Solving Literal Equations

### Regular Equations

1a)  $43 - 2x = 11$

2a)  $23 + 4x - 34 = -11$

3a)  $3(2x - 7) = 6$

4a)  $14 = 2x + 26$

5a)  $-30 = 4 - 8x$

6a)  $3(x - 4) = 12$

### Literal Equations

1b) Solve for x:  $3y + 2x = -1$

2b) Solve for k:  $3 - 3k + 7k = 5b$

3b) Solve for b:  $\frac{1}{2}(4a + 10b) = c$

4b) Solve for v:  $3d = 7v + 5$

5b) Solve for h:  $7a = 10 - 2h$

6b) Solve for p:  $5(4x + p) = w$

**Formulas can be manipulated through the process of solving literal equations.**

7) Solve for h:  $A = bh$  (area of a parallelogram)

8) Solve for b:  $A = \frac{1}{2}bh$  (Area of a triangle)

9) Solve for b:  $A = bh$  (Area of a parallelogram)

10) Solve for h:  $A = \frac{1}{2}bh$  (Area of a triangle)

11) Solve for d:  $C = \pi d$  (Circumference of a circle)

12) Solve for L:  $P = 2L + 2W$  (Perimeter of a rectangle)

13) Solve for t:  $D = rt$  (Linear motion)

**Solve each of the following equations for the variable "y".**

14)  $2y = 4x + 10$

15)  $-5y + 15 = 3x$

16)  $2x + 4y = -22$

15) Which of the following is equivalent to:  $7a - 8b = 10x$ .

a.  $a = \frac{18xb}{7}$

b.  $a = \frac{10x + 8b}{7}$

c.  $a = \frac{10x - 8b}{7}$

16) Which of the following is equivalent to:  $4ab + k = 13$

a.  $k = \frac{13}{4ab}$

b.  $k = \frac{13 - ab}{4}$

c.  $k = 13 - 4ab$