Today's Plan:

Learning Target (standard): I will solve literal equations for a specific variable. I will use my knowledge of literal equations to put linear equations in slope-intercept form.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

Assessment: Board work, homework check and homework assignment

Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

Solve for x.

$$d = xc - f$$

$$+f \qquad +f$$

$$d + f = xc$$

1) Add f to both sides because it is farthest away from the x on the same side. We add it to both sides so that the f's cancel on the right side.

$$\frac{d+f}{c} = \frac{xc}{c}$$

$$\frac{d}{c} + \frac{f}{c} = x$$

2) Divide every term by c because the opposite operation of multiplication is division and we need x by itself. Check to see if the fractions reduce.

$$x = \frac{d}{c} + \frac{f}{c}$$

3) Switch sides so that x is on the left by itself and make sure the right side is in descending (alphabetical) order.

Solve for x.

$$P\left[m = \frac{x+n}{p}\right]$$

$$mp = x + n$$
$$ -n \quad\quad -n$$

$$mp - n = x$$

$$x = mp - n$$

Solve for *y*.

$$3\left[-6x + \frac{2}{3}y = 2\right]$$

$$-18x + 2y = 6$$
$$+18x \quad\quad\quad +18x$$

$$\frac{2y}{2} = \frac{18x}{2} + \frac{6}{2}$$

$$y = 9x + 3$$

Solve for b :

$$2\left[A = \frac{1}{2}bh\right]$$

$$\frac{2A}{h} = \frac{bh}{h}$$

$$\frac{2A}{h} = b$$

$$b = \frac{2A}{h}$$

Solve for a.

$$bd\left[\frac{a}{b} - 3 = \frac{c}{d}\right]$$

$$ad - 3bd = bc$$
$$\qquad +3bd \quad +3bd$$

$$\frac{ad}{d} = \frac{bc}{d} + \frac{3bd}{d}$$

$$a = \frac{bc}{d} + 3b$$

Solve for *y*.

$$3\left[-4x + \frac{2}{3}y = 6\right]$$

$$-12x + 2y = 18$$

$$+12x \qquad\qquad +12x$$

$$\frac{2y}{2} = \frac{12x}{2} + \frac{18}{2}$$

$$y = 6x + 9$$

Solve for *n*.

$$4\left[\frac{m-n}{4} = p + 2\right]$$

$$m - n = 4p + 8$$

$$-m \qquad\qquad -m$$

$$\frac{-n}{-1} = \frac{-m}{-1} + \frac{4p}{-1} + \frac{8}{-1}$$

$$n = m - 4p - 8$$

Solve for *y*.

$$2\left[2x - \frac{1}{2}y = 4\right]$$

$$4x - y = 8$$

$$-4x \qquad -4x$$

$$\frac{-y}{-1} = \frac{-4x}{-1} + \frac{8}{-1}$$

$$y = 4x - 8$$

Solve for *n*.

$$-5m - 6n = 18$$

$$+5m \qquad +5m$$

$$\frac{-6n}{-6} = \frac{5m}{-6} + \frac{18}{-6}$$

$$n = -\frac{5m}{6} - 3$$

$$n = -\frac{5}{6}m - 3$$

Solve for a.

$$a\left[\dfrac{x}{a} = (c + b)\right]$$

~~$x = ac + ab$~~

$$\dfrac{x}{c+b} = \dfrac{a(c+b)}{c+b}$$

$$a = \dfrac{x}{b+c}$$

Assignment:

Literal Equations Review

#1-14