

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.

NAME _____

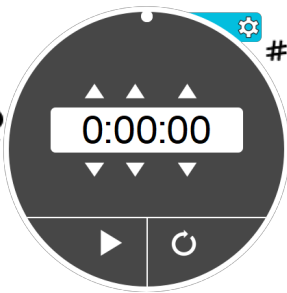
#22

BELL RINGER

1.) Solve $\frac{1}{3}x = -9$.
 $x = -27$

2.) Solve $4(x - 2) = 4x + 3$.
 $4x - 8 = 4x + 3$
 $-8 \neq 3$
 no solution

3.) Find the odds of randomly choosing a purple marble from a bag with 11 green, 2 red, and 3 purple marbles.
 want: don't want



3:13

Solve:

$$6(3 - 5x) = 6(3x + 3)$$

$$18 - 30x = 18x + 18$$

$-18x \quad -18x$

$$18 - 48x = 18$$

$-18 \quad -18$

$$-48x = 0$$

$$x = 0$$

Solve:

$$-6v - 29 = -2(1 + 3v)$$

$$-6v - 29 = -2 - 6v$$

$$-29 \neq -2$$

no solution

Solve:

$$-5x + 10 = -2(3 - 6x)$$

$$-5x + 10 = -6 + 12x$$

$$\begin{array}{r} -12x \\ -12x \end{array}$$

$$\begin{array}{r} -17x + 10 = -6 \\ -10 \quad -10 \end{array}$$

$$\begin{array}{r} -17x = -16 \\ \hline -17 \quad -17 \end{array}$$

$$x = \frac{16}{17}$$

Solving Literal Equations:

Literal equations are equations that contain more than one variable

Suggestions for solving:

- Cross multiply or clear the fractions
- Isolate the term with the desired variable by adding or subtracting
- Isolate the desired variable by multiplying or dividing
- write in descending order - variables in alphabetical order followed by numbers alone

* Solving for a variable means that the variable alone on the left side is equal to everything else *

$$C = \pi d$$

$$A = \pi r^2$$

$$P = 2l + 2w$$

① Solve for y and then find the value of y given the value for x .

$$y + 2x = 5$$

$$x = \boxed{-1} \boxed{0} \boxed{3}$$

$$\textcircled{1} \quad y + 2x = 5$$

$-2x \quad -2x$

$$y = -2x + 5$$

$$\textcircled{2} \quad y = -2(-1) + 5$$

$$y = 2 + 5$$

$$y = 7$$

$$\textcircled{3} \quad y = -2(0) + 5$$

$$y = 0 + 5$$

$$y = 5$$

$$\textcircled{4} \quad y = -2(3) + 5$$

$$y = -6 + 5$$

$$y = -1$$

Solve for w :

$$P = 2l + 2w$$

$-2l \quad -2l$

$$\frac{-2l + P}{2} = \frac{2w}{2}$$

$$-l + \frac{P}{2} = w$$

$$w = -l + \frac{P}{2}$$

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 F :

$$9 \left[C = \frac{5}{9}(F - 32) \right]$$

$$9C = 5(F - 32)$$

$$9C = 5F - 160$$
$$+160 \quad +160$$

$$\frac{9C + 160}{5} = \frac{5F}{5}$$

$$\frac{9C}{5} + 32 = F$$

$$F = \frac{9C}{5} + 32$$

Solve for y :

$$6x - 7y = 4$$

$-6x$ $-6x$

$$\frac{-7y}{-7} = \frac{-6x + 4}{-7}$$

$$y = \frac{6}{7}x - \frac{4}{7}$$

Assignment:

Edulastic Literal Equations

#1-10

- * Solve each equation on paper and submit answers in Edulastic.
You work will be turned in to me. *