

Name Key

Period _____ Date _____

Day 07- Solving for a Variable (Literal Equations): Classwork

$$1. \quad \begin{array}{r} y + 11 = 20 \\ -11 \quad -11 \\ \hline \end{array}$$

$$\boxed{y = 9}$$

Solve
for y :
(combine if
you can,
if not just
write everything out)

$$2. \quad \begin{array}{r} y + x = 10 \\ -x \quad -x \\ \hline \end{array}$$

$$\boxed{y = 10 - x}$$

$$3. \quad \begin{array}{r} y - 6x = 10 \\ +6x \quad +6x \\ \hline \end{array}$$

$$\boxed{y = 10 + 6x}$$

$$4. \quad \begin{array}{r} y + ax = z \\ -ax \quad -ax \\ \hline \end{array}$$

$$\boxed{y = z - ax}$$

$$5. \quad \begin{array}{r} 2y + 6 = 8 \\ -6 \quad -6 \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{2}{2}$$

$$\boxed{y = 1}$$

$$6. \quad \begin{array}{r} 2y + 3 = 8 \\ -3 \quad -3 \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{5}{2}$$

$$\boxed{y = 5/2}$$

$$7. \quad \begin{array}{r} 2y + x = 8 \\ -x \quad -x \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{8-x}{2}$$

$$\boxed{y = \frac{8-x}{2}}$$

* Divide
everything

by 2

$$\text{or } \boxed{y = 4 - \frac{x}{2}}$$

$$8. \quad \begin{array}{r} 2y + ax = 8 \\ -ax \quad -ax \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{8-ax}{2}$$

$$\boxed{y = \frac{8-ax}{2}} \text{ or } \boxed{y = 4 - \frac{ax}{2}}$$

$$9. \quad \begin{array}{r} 2y + ax = z \\ -ax \quad -ax \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{z-ax}{2}$$

$$\boxed{y = \frac{z-ax}{2}}$$

Now, let's look at some formulas:

$$10. \frac{A}{W} = \frac{LW}{W}$$

Solve for L

undo all operations
to L

$$\boxed{\frac{A}{W} = L}$$

$$11. \frac{P}{-2L} = \frac{2L + 2W}{-2L}$$

Solve for W

$$\frac{P - 2L}{2} = \frac{2W}{2}$$

$$\boxed{\frac{P - 2L}{2} = W} \text{ or } \boxed{\frac{P}{2} - L = W}$$

$$12. \frac{I}{PT} = \frac{PRT}{PT}$$

Solve for R

$$\boxed{\frac{I}{PT} = R}$$

$$13. \frac{y - b}{-b} = \frac{mx + b}{-b}$$

Solve for m

$$\frac{y - b}{m} = \frac{mx}{m}$$

$$\boxed{\frac{y - b}{m} = x}$$

$$14. \frac{A}{a+b} = \frac{1}{2}h(a+b)$$

Solve for h

$$\frac{A}{a+b} = \frac{1}{2}h(a+b)$$

$$(2) \frac{A}{a+b} = \frac{1}{2}h (2)$$

$$\boxed{\frac{2A}{a+b} = h}$$