8-24-15

Solving Literal Equations

More than 1 variable

Aug 18-12:57 PM

(11) $2(m+3)-1=8+3m$

$2m+6-1=8+3m$

$2m+5=8+3m$

$-2m \quad -2m$

$5=8+m$

$-8 \quad -8$

$-3=m$

Aug 24-9:36 AM

Solve for x

1) $-x-7y=10$

$+7y \quad +7y$

$-x=7y+10$

$x=-7y-10$

2) $6x+3y=-15$

$-3y \quad -3y$

$\frac{6x}{6}=\frac{-3y-15}{6}$

$x=-\frac{1}{2}y-\frac{5}{2}$

3) $4x-2y=-20$

$+2y \quad +2y$

$\frac{4x}{4}=\frac{2y-20}{4}$

$x=\frac{1}{2}y-5$

4) $x-y=7$

$+y \quad +y$

$x=y+7$

5) $8x+y=3$

$-y \quad -y$

$\frac{8x}{8}=\frac{-y+3}{8}$

$x=-\frac{1}{8}y+\frac{3}{8}$

Solve for y

6) $-x-7y=10$

$+x \quad +x$

$\frac{-7y}{-7}=\frac{1x+10}{-7}$

$y=-\frac{1}{7}x-\frac{10}{7}$

7) $6x+3y=-15$

$-6x \quad -6x$

$\frac{3y}{3}=\frac{-6x-15}{3}$

$y=-2x-5$

8) $4x-2y=-20$

9) $x-y=7$

$-x \quad -x$

$-y=-x+7$

$y=x-7$

10) $8x+y=3$

Sep 22-10:17 AM

Solve for the indicated variable

11) $F_r=\frac{mv^2}{r}$ · r for v^2

$\frac{Fr}{m}=\frac{mv^2}{m}$

$\frac{Fr}{m}=v^2$

12) $E=mgh$ for g

$\frac{E}{mh}=\frac{mgh}{mh}$

$\frac{E}{mh}=g$

13) $VD=M$ · V for V

$\frac{VD}{D}=\frac{M}{D}$

$V=\frac{M}{D}$

14) $C=\frac{5}{9}(F-32)$ for F

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

$+32 \quad +32$

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

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Conclusion

1. What is the first thing you are going to do?
Look to see what you are solving for.
2. How do you use PEMDAS to solve a literal equation? Backwards
3. Questions???

Aug 18-1:24 PM

Assignment

Literal Equation Wkst

Aug 24-8:09 AM

Solving Literal Equations

Solve the following equations for x.

1. $7x+y=2$
2. $x-4y=-3$
3. $-2x-5y=-1$
4. $3x+2y=4$

Solve the following equations for y.

5. $7x+y=2$
6. $x-4y=-3$
7. $-2x-5y=-1$
8. $3x+2y=4$

Solve the following formulas for the given variable.

9. $V=\frac{\pi R^2 h}{3}$ for h

10. $P=2l+2w$ for w

11. $h=\frac{3P}{w}$ for w

12. $L=\frac{3MP^2}{Q}$ for P^2

Aug 19-4:26 PM

Aug 26-8:58 AM