

2.5 Literal Equations

NOTES

ALGEBRA

Write your
questions here!



Solve each equation for x:

Ex 1:

Ex 2:

Are there any differences in how we solved these?

Now solve the following equation for a the same way.

REMEMBER:

Ex 3:

How is it different from the other equations? Solutions?

HOT TIP!

Ex 4: Area of a Triangle, solve for b

Ex 5: Perimeter of a Rectangle.

Use the following formula for interest and solve the given variables.

$A =$

Ex 6: Solve for P.

Ex 7: Solve for t.

Sometimes the variable you need to get by itself is in more than one location.
HOT TIP:

Ex 8: Solve for x.

Ex 9: Solve for x.

You Try:

1) Solve for c.

2) Solve for x.

SUMMARY:

Now,
summarize
your notes
here!



2.5 Literal Equations

PRACTICE

Directions: Pick the best solution that solves each equation for the indicated variable.

1) $\frac{c}{a} = rd$, for a

- a) $a = \frac{c}{rd}$
- b) $a = -crd$
- c) $a = c + rd$
- d) $a = c - rd$

2) $g = xc - y$, for x .

- a) $x = -cg + cy$
- b) $x = \frac{g-y}{c}$
- c) $x = -g - y - c$
- d) $x = \frac{g+y}{c}$

Directions: Solve each equation for the indicated variable.

3) $u = a + k - b$, for a

4) $z = b - am$, for m

5) $3a - c = -1$, for a

6) $g = 3x + 2$, for x .

7) $d = rt$, for t

8) $z = \frac{m}{x}$, for x

9) $z = \frac{x+y}{mx}$, for x

10) $z = mx + yx$ for x

11) $A = \frac{1}{2}h(x + y)$, for x .

12) $y - a = m(x - b)$, for x

Directions: Simplify each expression.

13) $(2x + 6) - (6x^2 + 4x - 8)$

14) $(2y - 5)(2y + 5)$

15) $(2x + 6)(6x^2 + 4x - 8)$

16) $(2y - 5) + (2y + 5)$

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WRAP UP

Directions: Solve each equation for the indicated variable.

1) $y = mx + b$, for m .

2) $z + ma = ba$, for a

3) Mr. Kelly has attended many national and local teaching workshops and conferences and has heard all about how students should discover mathematics for themselves. He became so interested in this teaching methodology that he went home and “discovered” his own theorem for finding the sides of a right triangle. He found the following formula when you have a right triangle with shortest side A, medium side B and longest side C: $A = \sqrt{C^2 - B^2}$.

a. Solve the Kellian Theorem (sounds good right?) for B.

- b. Mr. Brust points out that Mr. Kelly just stole the Pythagorean Theorem, which had already been discovered a few years earlier. Solve the Pythagorean Theorem ($c^2 = a^2 + b^2$) for a to see if Mr. Brust is right.

EXIT TICKET –

Mr. Brust decides its high time to let the world know about his true passion...playing the Theremin and Tuvan Throat Singing. He books Wembley Stadium in London for his first LIVE SHOW!!! He decides to charge children \$14.50 and each adult \$27.25. He hopes to make at least \$100,000.

- 1) Pick two variables for this situation and define what they mean.
- 2) Write a formula using your variables (careful...is this formula an equation or inequality?).
- 3) Solve that formula for the variable that you have designated for the number of adults.