

Do Now:

Let's review your inverse operations: (Remember inverse operations are the opposite)

- a. How do you undo addition? _____
- b. How do you undo subtraction? _____
- c. How do you undo multiplication? _____
- d. How do you undo division? _____
- e. How do you undo "squaring" (exponent of 2)? _____
- f. If you are square rooting you would? _____

AIM: SOLVING LITERAL EQUATIONS

Define Literal:

Literally it's TIME to get LITERAL!

But first, let's review order of operations when working with literal equations:

First undo _____ and _____

Second und _____ and _____

Third undo exponents or radicals.

Related Equations	Literal Equation
1. Solve $x - 5 = 9$ for x .	2. Solve $x - a = b$ for x .
3. Solve $2x = 7$ for x .	4. Solve $ax = b$ for x .
5. Solve $2x - 6 = 10$ for x .	6. Solve $ax - b = c$ for x .
7. Solve $3x + 6 = 30$ for x .	8. If $3ax + b = c$, then x equals...

9. Michael borrows money from his uncle, who is charging him simple interest using the formula $I = Prt$. To figure out what the interest rate, r , is, Michael rearranges the formula to find r . His new formula is r equals

1) $\frac{I - P}{t}$

2) $\frac{P - I}{t}$

3) $\frac{I}{Pt}$

4) $\frac{Pt}{I}$

10. The distance a free falling object has traveled can be modeled by the equation, $d = \frac{1}{2}at^2$

where a is acceleration due to gravity and t is the amount of time the object has fallen. What is t in terms of a and d ?

1) $t = \sqrt{\frac{da}{2}}$

2) $t = \sqrt{\frac{2d}{a}}$

3) $t = \left(\frac{da}{d}\right)^2$

4) $t = \left(\frac{2d}{a}\right)^2$

11. If $a + ar = b + r$, what is a expressed in terms of b and r ?

Name _____

Exit Ticket

The science teacher wrote three equations on a board that relate velocity, v , distance traveled, d , and the time to travel the distance, t , on the board.

$$v = \frac{d}{t}$$

$$t = \frac{d}{v}$$

$$d = vt$$

Would you need to memorize all three equations or could you just memorize one? Explain your reasoning.

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