

Minute 20

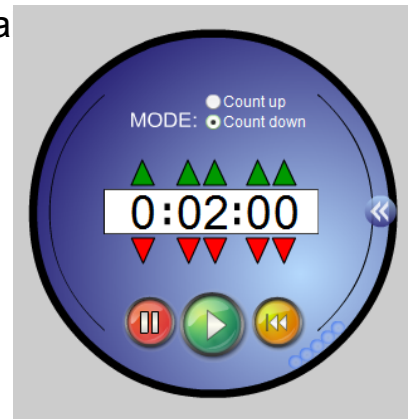
- If $a + 8 = 16$, then $a =$
- Write the greatest number: 8.20 8.02 8.022
- $0.3 + 0.2 + 0.1$

For questions 4-7, round to the underlined place value.

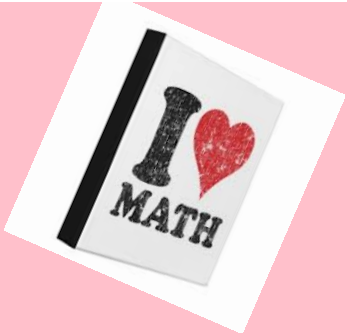
- 26.26
- 2.81
- 0.018
- 15.45

For questions 8-10, use $a = 2$, $b = 3$, and $c = 8$.

- $ac =$
- The sum of a and b is ____.
- $\frac{c}{a} =$



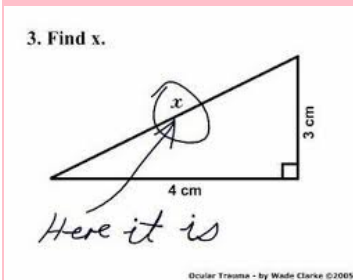
1. 8
2. 8.20
3. 0.6
4. 26
5. 3
6. 0.02
7. 15.5
8. 16
9. 5
10. 4



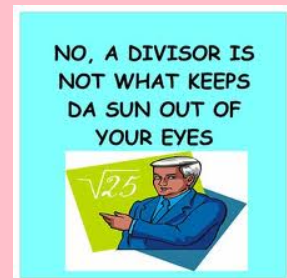
I was good at math before they decided to mix the alphabet in it

Objective:

Students will be able to solve two-step equations of the form $p(x + q) = r$.



THERE IS A FINE LINE BETWEEN NUMERATOR AND DENOMINATOR



$$6 = 5r - 14$$

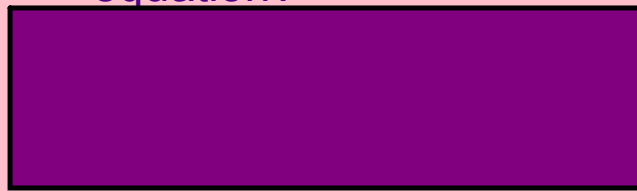
$$+ 14 \qquad + 14$$



$$\frac{20}{5} = \frac{5r}{5}$$

$$4 = r$$

What are the steps you would use to solve the equation?



What about $3(a + 1) = 3$?

$$p(x + q) = r$$

S
A
D
D
E
P

Solve Two-Step Equations

An equation like $2(w + 36) = 114$ is in the form $p(x + q) = r$. It contains two factors, p and $(x + q)$, and is considered a two-step equation. Solve these equations using the properties of equality.

Step 1: Divide by the factor p . (*# right outside the parentheses*)

Step 2: Undo any addition or subtraction that was inside the parentheses.

Example:

$$\frac{2(x + 4)}{2} = \frac{18}{2}$$

$$\begin{array}{r} x + 4 = 9 \\ -4 \quad -4 \\ \hline x = 5 \end{array}$$

What operation is performed between the 2 and $(x + 4)$?

How do we "undo" this operation?

$$\begin{array}{r} \text{Example: } 4(5 + b) = -12 \\ \hline 4 \qquad \qquad \qquad 4 \\ \hline 5 + b = -3 \\ -5 \qquad \qquad -5 \\ \hline b = -8 \end{array}$$

Step 1: Undo the multiplication by dividing by "p"

Step 2: Undo the addition by subtracting

$$\begin{array}{r} \text{Example: } 5(n - 2) = -30 \\ \hline 5 \qquad \qquad \qquad 5 \\ \hline n - 2 = -6 \\ +2 \qquad +2 \\ \hline n = -4 \end{array}$$

EQUATIONS WITH RATIONAL COEFFICIENTS

Sometimes the factor p , in $p(x + q) = r$, will be a fraction or decimal.

Example: Solve $\frac{3}{2}(n + 6) = 10$. Check your solution.

$$\frac{10}{1} \cdot \frac{3}{2} = \frac{30}{2}$$

What's the coefficient?

rec $\frac{3}{2}$

$$\begin{array}{r} n+6 = 15 \\ -6 \quad -6 \\ \hline n = 9 \end{array}$$

d. $\frac{1}{4}(d - 3) = -15$

$$\begin{array}{r} d-3 = -60 \\ +3 \quad +3 \\ \hline d = -57 \end{array}$$

e. $0.75(6 + d) = 12$

$$\begin{array}{r} 6+d = 16 \\ -6 \quad -6 \\ \hline d = 10 \end{array}$$

f. $\frac{5}{9}(t + 3) = 40$

$$\begin{array}{r} t+3 = 72 \\ -3 \quad -3 \\ \hline t = 69 \end{array}$$

Jose
Javier bought 3 bags of balloons for a party. He used 8 balloons from each bag. Write and solve an equation to find how many balloons were originally in the bag if there were 21 balloons left over.

$b = \#$ of balloons in each bag

$$\frac{3(b-8)}{3} = \frac{21}{3}$$

$$b-8=7$$
$$+8 \quad +8$$

$$b=15$$

15 balloons
in each
bag

Now you try...

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a. $2(x + 4) = 20$

b. $3(b - 6) = 12$

c. $-7(6 + d) = 49$

Homework: Lesson 4 Homework Practice WS odds

Attachments

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