

12-6-17

Aim: SWBAT solve and check 2-step equations.

HW: ~~Pg. 131 # 3 - 17 odd (Fire drill)~~

Quiz tomorrow (1-step solve and check)

Do Now: Solve. $6 - x = -10$

Pg. 124 #9-25 odd, 30

9) $\frac{z}{1} \cdot \frac{p}{z} = 9 \cdot \frac{2}{1}$ cl/ $\frac{p}{z} = 9$
 $p = 18$ $\frac{18}{z} = 9$
 $9 = 9$

11) $\frac{3b}{3} = \frac{39}{3}$ $3b = 39$
 $b = 13$ $3 \cdot 13 = 39$
 $39 = 39$

13) $\frac{z}{1.8} = 5$ cl/ $\frac{z}{1.8} = 5$
 $z = 9$ $\frac{9}{1.8} = 5$
 $5 = 5$

15) $\frac{44}{4.4} = \frac{44p}{4.4}$ cl/ $44 = 4.4p$
 $10 = p$ $44 = (4.4)(10)$
 $44 = 44$

17) $\frac{14h}{14} = \frac{35}{14}$ cl/ $14h = 35$
 $h = \frac{35}{14}$ $\frac{7 \cdot 14 \cdot 5}{1 \cdot 2} = 35$
 $h = \frac{5}{2}$ $35 = 35$

19) $\frac{12m}{12} = \frac{-25.2}{12}$ $12m = -25.2$
 $m = -2.1$ $12(-2.1) = -25.2$
 $-25.2 = -25.2$

21) $\frac{1368}{456} = \frac{456x}{456}$ cl/ $1368 = 456x$
 $3 = x$ $1368 = 456 \cdot 3$
 $1368 = 1368$

23) $\frac{12}{-2} = \frac{-2z}{-2}$ cl/ $12 = -2z$
 $-6 = z$ $12 = (-2)(-6)$
 $12 = 12$

25) $\frac{y}{-1.5} = 21(-1.5)$ cl/ $\frac{y}{-1.5} = 21$
 $y = -31.5$ $\frac{-31.5}{-1.5} = 21$
 $21 = 21$

30) $\frac{-x}{-1} = \frac{-8}{-1}$ cl/ $-x = -8$
 $x = 8$ $(-1)(8) = -8$
 $-8 = -8$

How to Play the Equations Game

#1 Eliminating numbers on the same side as the variable

- Constants eliminate with opposite sign *(need to make 0)*
- Coefficients eliminate with division of the coefficient
- Denominators eliminate with multiplication of the denominator
- Fractional Coefficients eliminate with multiplication of the reciprocal

*need to
make 1
sign stays
the same*

#2 Variable terms eliminate with opposite sign

#3 Two-Step Equations

- i. Eliminate the constant
- ii. Eliminate the coefficient or denominator

#4 Entire side as a fraction

- i. Eliminate the denominator

#5 Distributive Property and Combining Like Terms Equations

- i. Simplify before you solve
 - Eliminate parentheses
 - Combine Like Terms

#6 Variables on Both Sides Equations

- i. Eliminate a variable term

Checking an Equation

- i. Rewrite the original equation
- ii. Substitute the answer for the variable
- iii. Evaluate until sides match using the Order of Operations

Step iii repeats as long as it takes.

Solve and check.

* $6 - x = -10$ *check*

6	$-x$	$=$	-10
-6			-6
<hr/>			
$-x$		$=$	-16
-1			-1
<hr/>			
x		$=$	16

$6 - x = -10$
 $6 - 16 = -10$
 $-10 = -10$

$$2x - 3 = -15$$

$$\frac{x}{3} + 2 = 4$$