BRING YOUR TEXTBOOK!!!

Warmup 10/ (# of claws a werewolf has • (# of fingers Frankenstein has on one hand - 2 fingers that fell off) + # of eyes a cyclops has) 1. -8 - 112. -23 + 73. $\frac{3}{5} \cdot 35$

- 4. $5 \div \frac{2}{5}$
- 5. How many triangles are there? Triangles can be any size.



New Unit: Solving Equations

- I have had a lot of struggling students really improve on this unit!
- What we just got done doing:
 - Bob has \$50. He earns \$8 per hour. Write an equation to show how much he has after "x" hours.

y = 8x + 50

- What we will be doing next:
 - Bob has \$50. He earns \$8 per hour. How long will it take him to have \$170?

170 = 8x + 50

Pretest: Solving Equations

- Our next unit is on solving equations.
- I don't want to spend too much time teaching you stuff you already know. I would rather start where you are and go <u>deeper</u>.
- This pretest will help me know where your skills are at right now!
- If you don't know one, that is okay, but you should still try it!!!
- Please show your work.
- THERE IS A TIME LIMIT. You may not get enough time to do them all!!!

Let's start at the beginning...

- One-step equations
- Focusing STRONGLY on equations with fractions

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1 and 2-Step Equations

Objective:

- Solve 1 and 2 step equations
- Know how to check a solution

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First, let's review normal 1-step equations...

1. x + 4 = 11-4 -4 x = 7





First, let's review normal 1-step equations...

1. 3x = 123 3 1x = 4x = 4





Equations with a fraction? $6 \div \frac{2}{3}$ $\frac{2}{3}x = \frac{6}{\frac{2}{3}}$ $= 6 \cdot \frac{3}{2}$ 18 1x = ?2 *x* = 9 = 9



It works!

Faster way:

When there's a fraction in front of the variable...

2 $\frac{1}{3}x = 6$ $\frac{3}{2} \cdot \frac{2}{3}x = 6 \cdot \frac{3}{2}$ 1x = 9x = 9

Mental Math strategies...



• "2/3 of something is 6"



- If 2/3 is 6, then 1/3 is 3
- The whole thing must be 9!

One-Step: Examples



2. $-\frac{4}{3}x = 20$

3. $\frac{15}{8} = \frac{5}{2}x$

x = 72



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

Mixed Numbers...



x = 9

EQUATIONS WITH FRACTIONS: RULES

- "If there's a fraction in front of the variable, you gotta multiply by the reciprocal."
- THIS WORKS BECAUSE: You are trying to get 1x, and any fraction times its reciprocal is 1!!!
- Change mixed numbers into improper fractions so they are easier to deal with.