Warmup 11/
$\left(\frac{\text { days until Christmas }- \text { days until Thanksgiving }- \text { days until tomorrow }-1}{\text { days until Wednesday }+1 \quad \text { Created by Stella }}\right)$

1) Which equation has infinitely many solutions? Hansen

A $\quad 8 x=8(x-1)+1$
B. $2 x-5=2(x-5)$
C. $22-6 x=2(3 x-11)$
D. $3(5 x-4)-8 x=7 x-12$

## Even though

 this is multiple choice, you MUST show ALL work!!!2) Four students each wrote an equation.

## Student Equations

| Student | Equation |
| :---: | :---: |
| Beto | $3 m=3 m+5$ |
| Lila | $9 r+4=4+9 r$ |
| Mark | $6-n=-n+2$ |
| Wanda | $8 u-2=2 u+8$ |

Which two students wrote equations that have no solution?
A Beto and Wanda
B. Beto and Mark
C. Lila and Wanda
D. Lila and Mark

## Pass out answer keys - great study

 material!!!
## On the test:

- Multi-step equations (parentheses/combining like terms)
- No solution/infinite solutions
- Story problems
- Writing to explain


## Today - "Cards" Review of Equations

- Will focus on multi-step equations, "special" equations, and story problems.
- The cards will be used to RANDOMLY put you into groups of 3 or 4.
- You will start at the problem matching your card and then rotate clockwise.
- EACH PERSON must show the work on their on paper. ONLY THE GROUP'S FINAL ANSWER goes on the handout.
- The group that gets the best score will win a prize. I will judge this based only on the handout. However, you must show me your INDIVIDUAL WORK on your own paper to receive your prize.


## Cards Review - Expectations

1. This is a group activity, but the test on Wednesday is individual. DO NOT just let one person do the work and then copy them. IF YOU ARE CONFUSED, YOU MUST ASK YOUR GROUP!
2. If you understand a problem but someone in your group doesn't, YOU MUST DO YOUR BEST TO TEACH THEM. We are a community of math learners - let's help each other out!
3. If you finish a problem before it's time to rotate, use this time to make sure everyone understands and has the right work shown. You may also go back to previous problems you didn't finish.
4. STAY ON TASK AT ALL TIMES!
5. WHISPERING/QUIET TALKING ONLY!

## Solve each equation:

$$
\begin{aligned}
& \text { a. } 5 x+75=75+5 x \\
& \text { b. } 5 x+75=-5 x+75 \\
& \text { c. } \mathbf{5 x}-\mathbf{7 5}=\mathbf{5 x}+\mathbf{7 5} \\
& \text { d. } 75-5 x=5 x-75 \\
& \text { Infinite Solutions } \\
& \mathrm{X}=0 \\
& \text { No solution } \\
& x=15
\end{aligned}
$$



## Solve the equation:

$$
\begin{gathered}
\text { This is just } 4 \\
4+2(6 x-10)-9 x=-4(3 x-3 x+12-8)
\end{gathered}
$$

LEFT SIDE SIMPLIFIES TO: 3x - 16 RIGHT SIDE SIMPLIFIES TO: - 16

$$
\begin{aligned}
& \text { You get } 3 x-16=-16 \\
& x=0
\end{aligned}
$$

- In one physical education class, $\frac{5}{8}$ of the students were playing basketball. After 3 more students joined, 18 students were playing basketball.

$$
\begin{aligned}
& \frac{5}{8} x=18+3 x \\
& 18=\frac{5}{8} x-3
\end{aligned}
$$


a. Copy all the equations that could represent this situation.

24 students
b. Find how many students were in the class.
c. Check your solution by substituting it into one of the valid equations.


Find the perimeter of this rectangle.

## 50 cm



## $(4 x+8) c m$

Make top $=$ bottom
$x=10.5$

Perimeter $=142$ cm

## 2 x cm



$$
x+x+x+x+3 x+(x-6)=90
$$

## Then go from there...

- Doc, Grumpy, Happy, Sleepy, Bashful, Sneezy, and Dopey were all mining for jewels. Doc, Grumpy, Bashful, and Dopey all found the same amount of jewels. Happy was extra energized and found triple the amount that Doc (and the other three) did. Sneezy was too busy sneezing and found 6 fewer jewels than Doc (and the other three) did. Sleepy fell asleep and didn't find any jewels. Altogether, the dwarves found 90 jewels. How many jewels did each dwarf find?


```
x = # of days
90-3x = 1.5x
20 days; both hair = 30 feet
```

- Rapunzel's hair was originally 90 feet long, but something strange has happened, and her hair is starting to shrink. Her hair is getting 3 feet shorter every day. Meanwhile, Lord Voldemort's head was originally bald, but something equally strange has happened, and his hair is growing 1.5 feet per day.
- Define a variable and write an equation that would figure out when their hair is the same length.
- How long will it take for Rapunzel's and Lord Voldemort's hair to be the same length? How long will their hair be at this noint?



## HOMEWORK: Study Reflection

## POSSIBLE STUDYING METHODS

- Redo some extra practice problems and try to match the answer key
- Try to figure out the challenge worksheet problems you missed
- Study the cards review answer key and redo the problems your group missed
- Visit lischwe.weebly.com and Rework Problems from the PowerPoints
- Rework missed homework questions
- Come to tutoring at lunch
- Other:

