

Warmup 11 / $(13 + 0.\bar{9})$

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- ***Make sure there is a whiteboard, marker, and eraser in your desk!***

Solve each equation:

1. $5(x - 3) + 10 = 2x + 3x - 5$
2. $3x + 12 = 3(x + 5)$
3. $2(x + 3) = -2x + 6$



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Replying to @BenLischwe

I love this note so much!! Tell your math kids that I say hi and math is cool!! 🥰👍

$$\square \frac{0}{\text{anything}} = 0 \quad (\text{so } x = 0)$$

$$\square \frac{\text{anything}}{0} = \text{undefined} \quad (\text{So no solution})$$

COMMON MISTAKE

- What is going to happen here?
 $5x + 9 = 5x$
- If you get rid of the variables on BOTH SIDES, it is either going to be "No solution" or "Infinite solutions".
- **Don't just leave it as " $9 = 0$ ". You MUST write infinite solutions or no solution.**

ONCE AGAIN...

IMPORTANT

- **" $7 = 8$ " is NOT AN ANSWER.**
- **You MUST write "No solution"**

Word Problems

- For each problem:
 - 1) Define a variable.
 - 2) Write an equation representing the situation.
 - 3) Solve the equation and describe the meaning of your solution.

- You are buying some shirts. You have to pay \$10 for shipping, plus \$8 per shirt. You have \$66 to spend.

- 1) Define a variable.
- 2) Write an equation representing the situation.
- 3) Solve the equation and describe the meaning of your solution.

1) $s = \# \text{ of shirts you can buy}$
 2) $8s + 10 = 66$
 3) $s = 7$
You can buy 7 shirts

- A group of people went to the movies. They each spent \$6.50 per ticket. They spent \$17.50 together on snacks. Altogether, they paid \$63.00.

- 1) Define a variable.
- 2) Write an equation representing the situation.
- 3) Solve the equation and describe the meaning of your solution.

1) $p = \# \text{ of people}$
 2) $6.50p + 17.50 = 63.00$
 3) $p = 7$
7 people went to the movies.



- You enter the fair with \$35. You buy 14 tickets, which all cost the same amount. After you buy the tickets, you have \$7 left.

- 1) Define a variable.
- 2) Write an equation representing the situation.
- 3) Solve the equation and describe the meaning of your solution.

1) $c = \text{cost of a ticket}$
 2) $35 - 14c = 7$
 3) $c = 2$
Each ticket is \$2.



- Billy started with \$7 and made \$3 per week. Bobby started with \$2 and made \$4 per week. How many weeks will it take for them to have the same amount of money? How much money will they both have?

- 1) $w = \# \text{ of weeks}$
- 2) $7 + 3w = 2 + 4w$
- 3) $w = 5$

**After 5 weeks, they will have the same amount of money.
 They will each have \$22.**

- Write a story problem that could be modeled by the equation $3x + 8 = 20$.

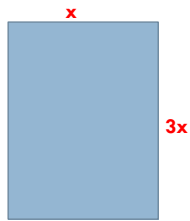
Lilly's Age

- In 16 years, Lilly will be 5 times as old as she is now. How old is Lilly now?

$L = \text{Lilly's age}$
 $L + 16 = \text{Lilly's age in 16 years}$
(Lilly in 16 years) = 5(Lilly right now)
 $L + 16 = 5L$
 $L = 4$
Lilly is 4.

Geometry Connection

- If the perimeter of the rectangle is 48, find the length and width.



$$x + 3x + x + 3x = 48$$

or

$$2(x) + 2(3x) = 48$$

$$8x = 48$$

$$x = 6$$

$$\text{Width} = 6, \text{Length} = 18$$

$$\text{Check: } 6 + 18 + 6 + 18 = 48$$

HOMEWORK

- p.157 (4 – 8, 10, 11)
- ***You should have gotten this page back. If you got rid of it, you will need to get the problems from the online textbook at connected.mcgraw-hill.com!!!