Warmup 11/ Solution of (4! + 8 = 2x)Created by Jonathan Hanks

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

1) Solve the equation. I want you to work on this TOGETHER with your group. Work on it step by step with them and make sure everyone is on the same page!

10 - 4(2b - 9) = 3(b + 4) - 12b

2) Early finishers: solve the equation in the date problem.

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.

- Meigs' Mathletes need money to travel to a competition. They have raised \$560. They need to raise a total of \$1680. Write and solve an equation to find how much more they need.
- 1) m = amount of money

they need

2) m + 560 = 1680

3) m = 1120

They need \$1120 more.



- 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.
 - 4) Describe the meaning of your solution.

s = # of shirts you can buy
 8s + 10 = 66
 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.
- 4) Describe the meaning of your solution.
- 1) p = # 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.
- 4) Describe the meaning of your solution.
- 1) c = 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) Define a variable.
 - 2) Write an equation representing the situation.
 - 3) Solve the equation.
 - 4) Describe the meaning of your solution.

- 1) w = # 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 = Lilly's age L + 16 = 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 + x + 3x = 48or 2(x) + 2(3x) = 488x = 48x = 6Width = 6, Length = 18 Check: 6 + 18 + 6 + 18 = 48

Geometry Connection

If the area of the rectangle is 60, find the value of x.
Check your answer.

12

4x - 3

12(4x - 3) = 6048x - 36 = 6048x = 96 $\mathbf{x} = \mathbf{2}$ Or divide both sides by 12 and get: 4x - 3 = 5Then solve; x = 2



□ 30 Minutes of ALEKS