## Warmup $11 /$ Solution of $(4!+8=2 x)$

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$\square{ }^{* * *}$ 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!

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

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

## Word Problems

$\square$ 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.
$\square$ 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.
 they need
4) $m+560=1680$
5) $m=1120$

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.
$\square$ You are buying some shirts. You have to pay $\$ 10$ for shipping, plus $\$ 8$ per shirt. You have $\$ 66$ to spend.
4) Define a variable.
5) Write an equation representing the situation.
6) Solve the equation.
7) Describe the meaning of your solution.
8) $\mathrm{s}=$ \# of shirts you can buy
9) $8 s+10=66$
10) $s=7$

You can buy 7 shirts
$\square$ 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.
5) $p=\#$ of people
6) $6.50 p+17.50=63.00$
7) $p=7$

7 people went to the movies.

$\square$ 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.
5) c = cost of a ticket
6) $35-14 \mathrm{c}=7$
7) $\mathrm{c}=2$

Each ticket is \$2.

$\square$ 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) $w=\#$ of weeks
4) $7+3 w=2+4 w$
5) $w=5$
6) After 5 weeks, they will have the same amount of money.
They will each have \$22.
7) Solve the equation.
8) Describe the meaning of your solution.
$\square$ Write a story problem that could be modeled by the equation $3 x+8=\mathbf{2 0}$.

## Lilly's Age

$\square \mathrm{ln} 16$ 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

$\square$ If the perimeter of the rectangle is 48 , find the length and width.


$$
\begin{gathered}
x+3 x+x+3 x=48 \\
\text { or } \\
2(x)+2(3 x)=48 \\
8 x=48 \\
x=6
\end{gathered} \begin{gathered}
\text { Width }=6 \text {, Length }=18
\end{gathered}
$$

Check: $6+18+6+18=48$

## Geometry Connection

$\square$ If the area of the rectangle is $\mathbf{6 0}$, find the value of $\mathbf{x}$. Check your answer.


$$
\begin{gathered}
12(4 x-3)=60 \\
48 x-36=60 \\
48 x=96 \\
x=2
\end{gathered}
$$

12 Or divide both sides by 12 and get:

$$
4 x-3=5
$$

Then solve; $\mathbf{x}=\mathbf{2}$

## HOMEWORK

$\square 30$ Minutes of ALEKS

