## Warmup <br> Created by Kimia Eghbali

(The time at night when people make a wish)
A group of friends went to the fair. They each paid the $\$ 8.00$ admissions fee to get in. They then each bought a snow cone each snow cone costs $\$ 3.00$. They also spent $\$ 40$ on rides altogether. In all, the friends spent $\$ 106$.

1. Write an equation to represent this situation, where " f " represents the number of friends. Then point an arrow to each number and variable in your equation and label it with what it represents.
2. Find your group's equation from PART A of the performance task from yesterday. Copy it onto your warmup page. (Just the original equation, not the solution.)

Turn in Warmups

First Half of Class - Make a
Poster

## REQUIREMENTS OF THE POSTER

Tape/glue the part A scenario to the poster
Write your equation (IN LARGE WRITING ACROSS THE WHOLE PAGE!!!)
Point an arrow to each number/variable in the equation and label it with what it represents in the scenario
Solve the equation and say what your solution represents

- MATH FIRST, MAKE IT PRETTY LATER!!!
- One way to have everyone contributing to the poster at the same time is to have different people working on different parts of the poster and then tape/glue them on at the end! (However, if you split up the work, you still need to collaborate on everything!)


## New Unit: Systems of Equations

## 1 minute challenge

- I am going to show you an equation with TWO VARIABLES in it. ( $x$ and $y$ )
- You will need to find as many solutions as you can. This will be an ( $x, y$ ) pair that works in the equation.
- FOR EXAMPLE, IF YOUR EQUATION WAS $y=3 x$, you could use $(2,6)$, because if $x=2$, then $y=6$.
- MAKE A LIST of your solutions on a blank piece of paper. The person with the most in one minute wins. You must write each solution as an ordered pair.


## 1 minute:

- Find as many solutions to this equation as you can

$$
x+y=11
$$

Is there a solution for both equations???

$$
\begin{aligned}
& y=2 x-1 \\
& x+y=11
\end{aligned}
$$

## 1 minute:

- Find as many solutions to this equation as you can:

$$
y=2 x-1
$$


-A system of equations is a set of more than one equation.

- To solve a system of equations, you need to find the ( $x, y$ ) pair that works in BOTH equations!!!

Do you think there is ANOTHER pair of numbers besides $(4,7)$ that works in both?

$$
\begin{aligned}
& y=2 x-1 \\
& x+y=11
\end{aligned}
$$

Remind me: what does the GRAPH of an equation like this look like?


Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
\begin{aligned}
& x+y=9 \\
& x-y=1
\end{aligned}
$$

Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
\begin{gathered}
y=2 x \\
x+y=15
\end{gathered}
$$

Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
x+y=10
$$

$$
2 x+y=12
$$

Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
\begin{gathered}
x-y=7 \\
x y=30
\end{gathered}
$$

Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
\begin{aligned}
& x+y=13 \\
& x-y=-3
\end{aligned}
$$

Which ( $\mathrm{x}, \mathrm{y}$ ) works for BOTH?

$$
\begin{aligned}
& y=-\frac{1}{3} x+4 \\
& y=\frac{3}{2} x-7
\end{aligned}
$$



