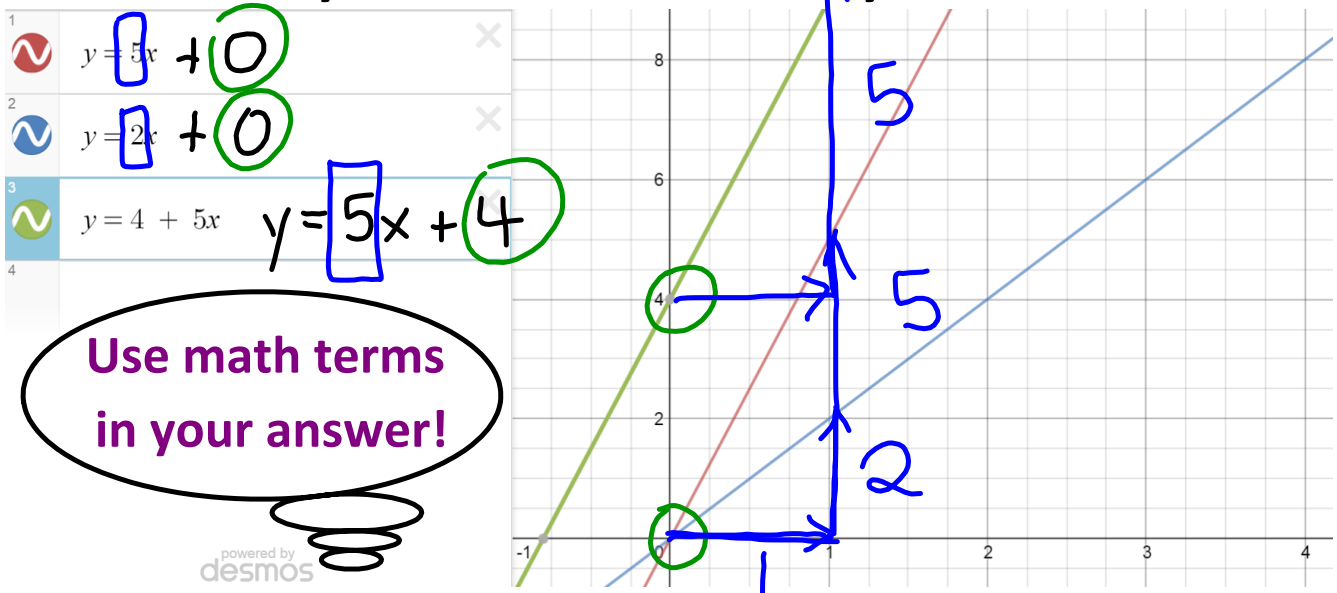


## Warm Up:

1. What do you notice? What do you wonder?



2. What do you think these graphs might be about?

$\circ$  = initial value

$\square$  = rate of change

MFM 1P – Investigation: Paper Ball Toss

CHALLENGE: Our challenge is to toss newspaper balls into the recycling bin from 3 meters away.

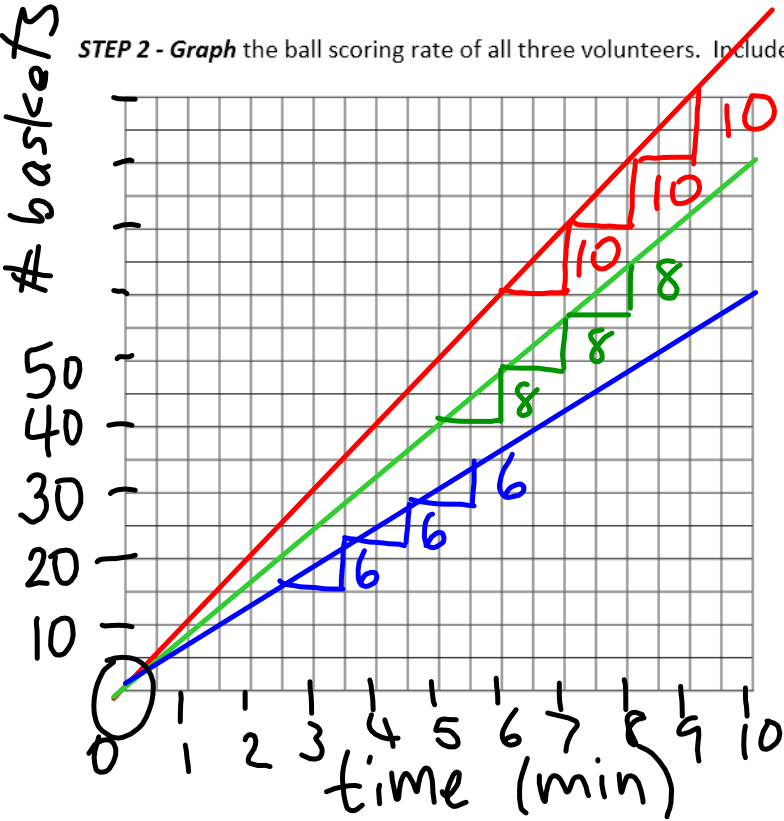
PREDICTION: 3 Volunteers

1. Ms.D. will be able to get 5 balls into the bin in 30 seconds.  
Too high = \_\_\_\_\_ Too low = \_\_\_\_\_ Best guess = \_\_\_\_\_
2. Jyia will be able to get 4 balls into the bin in 30 seconds.  
Too high = \_\_\_\_\_ Too low = \_\_\_\_\_ Best guess = \_\_\_\_\_
3. Liam will be able to get 3 balls into the bin in 30 seconds.  
Too high = \_\_\_\_\_ Too low = \_\_\_\_\_ Best guess = \_\_\_\_\_

STEP 1 - Table of Values.

Name	Number of balls scored in 30 seconds	Scoring Rate (balls/minute) -show your work!
Ms.D	5	10
Jyia	4	8
Liam	3	6

STEP 2 - Graph the ball scoring rate of all three volunteers. Include titles and labels!



STEP 3 - Equations - Write an equation to represent each volunteer's paper ball scoring rate.

Group Member #1: Ms.D

Equation:

Group Member #2: Jyia

Equation:

Group Member #3: Liam

Equation:

Liam

**STEP 6: Help your teacher!**

1. Ms. ~~Decker~~ <sup>6</sup> Becker's scoring rate is \_\_\_\_\_ per minute.
2. How many balls of a head start will Ms. ~~Decker~~ <sup>Liam</sup> need to catch up to the fast scorer by 10 minutes? 10  
Solve the problem using a table or a graph, and check your work using your equations.

**Prediction:** I think Ms. Decker will need a head start of \_\_\_\_\_ newspaper balls.

Too high = \_\_\_\_\_ Too low = \_\_\_\_\_ Best guess = \_\_\_\_\_

**My Solution:****Checking my Work Using Equations:**