How to Desmo-fy Your Math Lesson

NCTM

April 26, 2018

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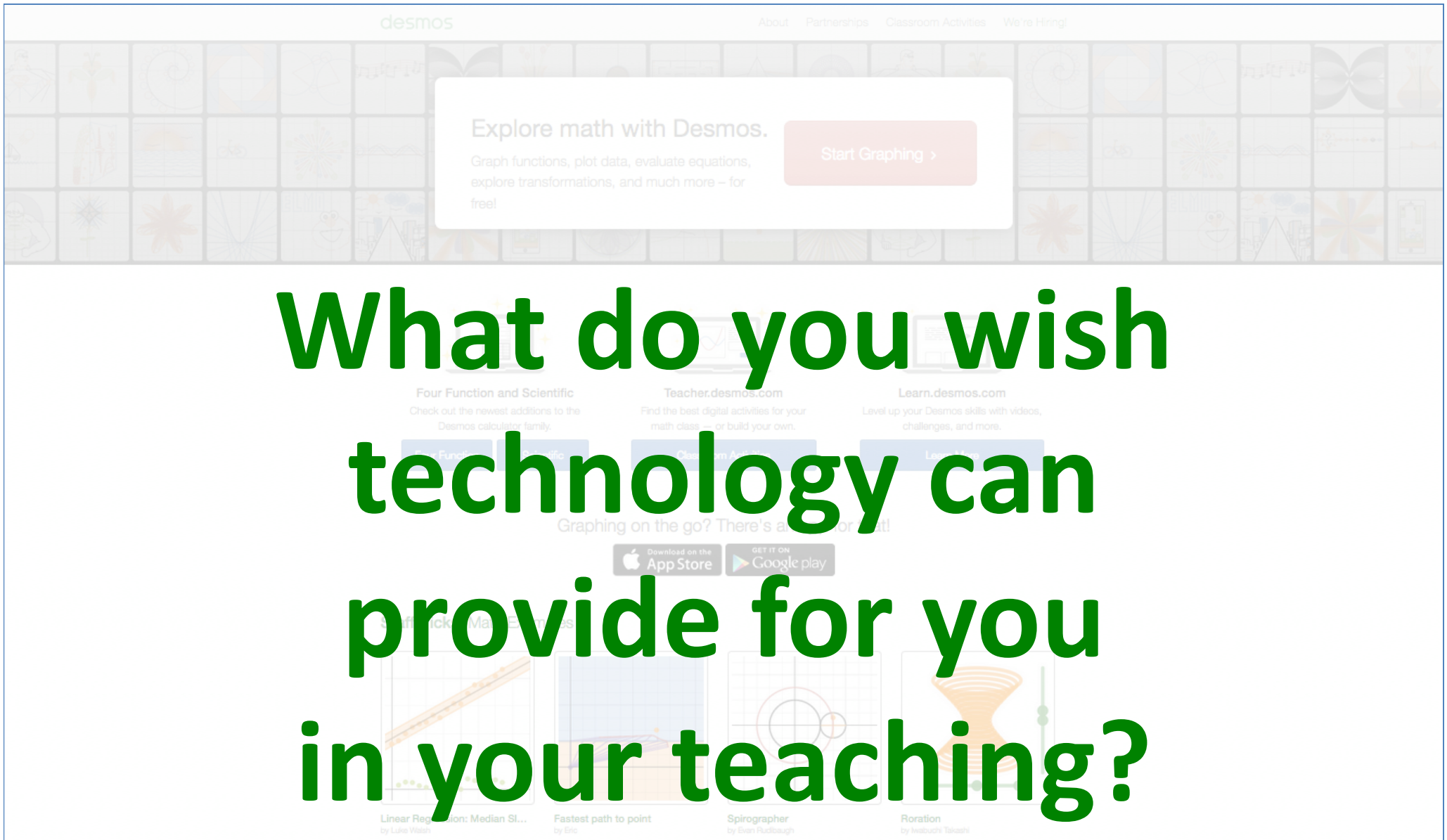
https://tinyurl.com/icmathnctm



What do you wish technology can provide for you in your teaching?

What's Wrong With This Picture?

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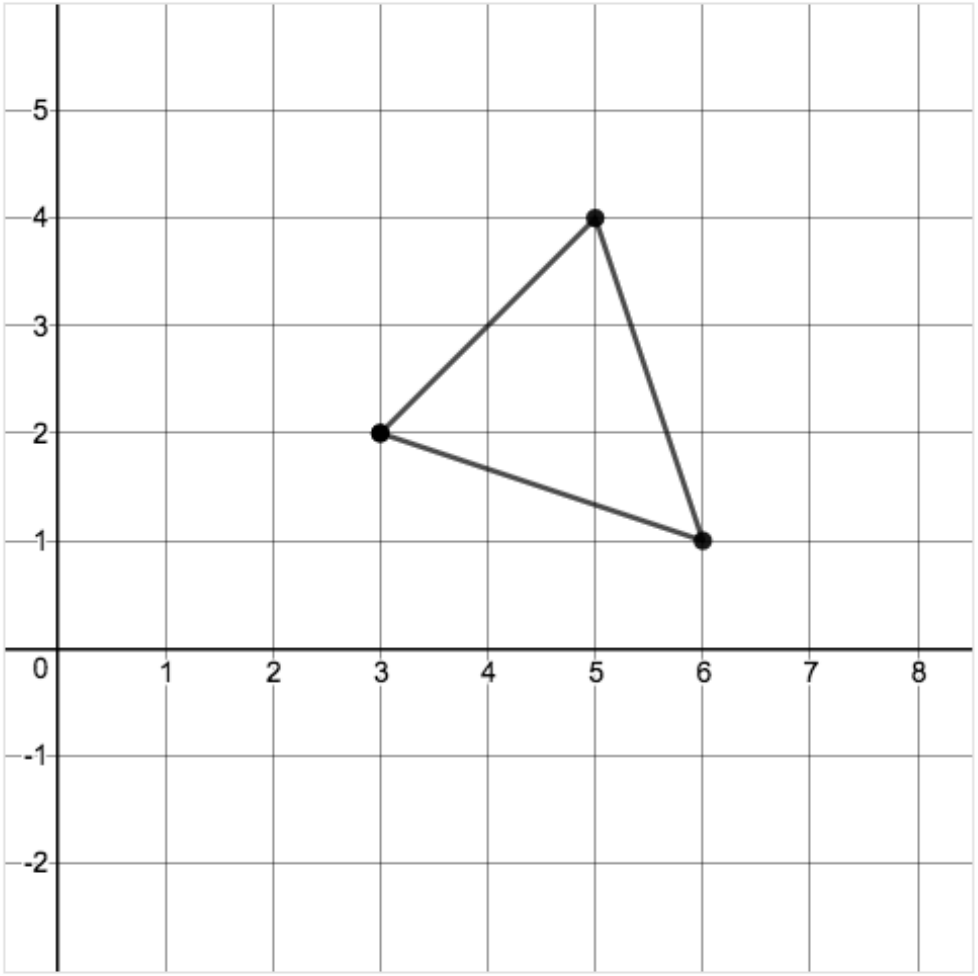
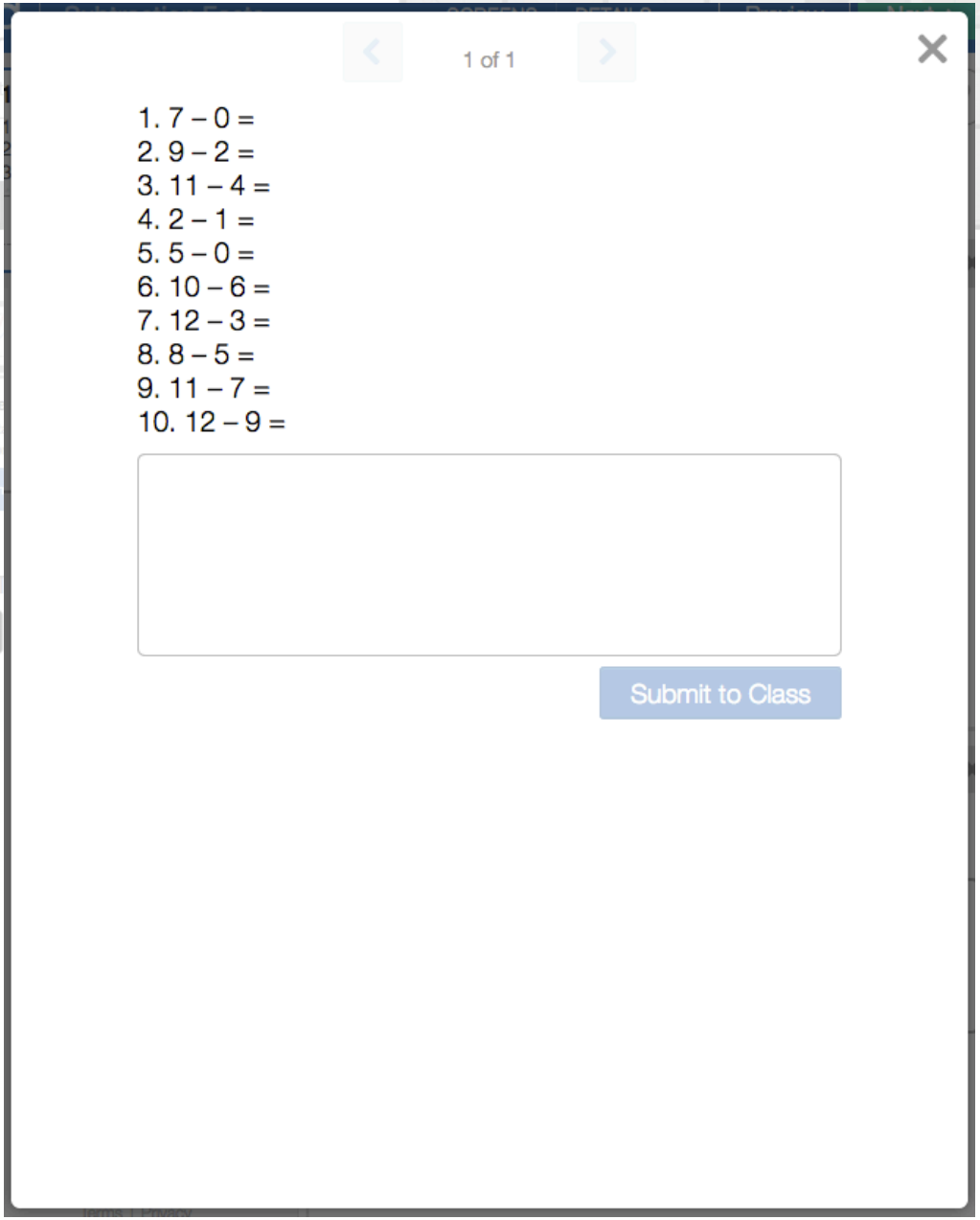


Write the new coordinates of each vertex after the figure has been translated 3 units to the left and 2 units down.

Submit to Class

Please don't do this

Just, no…



Lesson #1

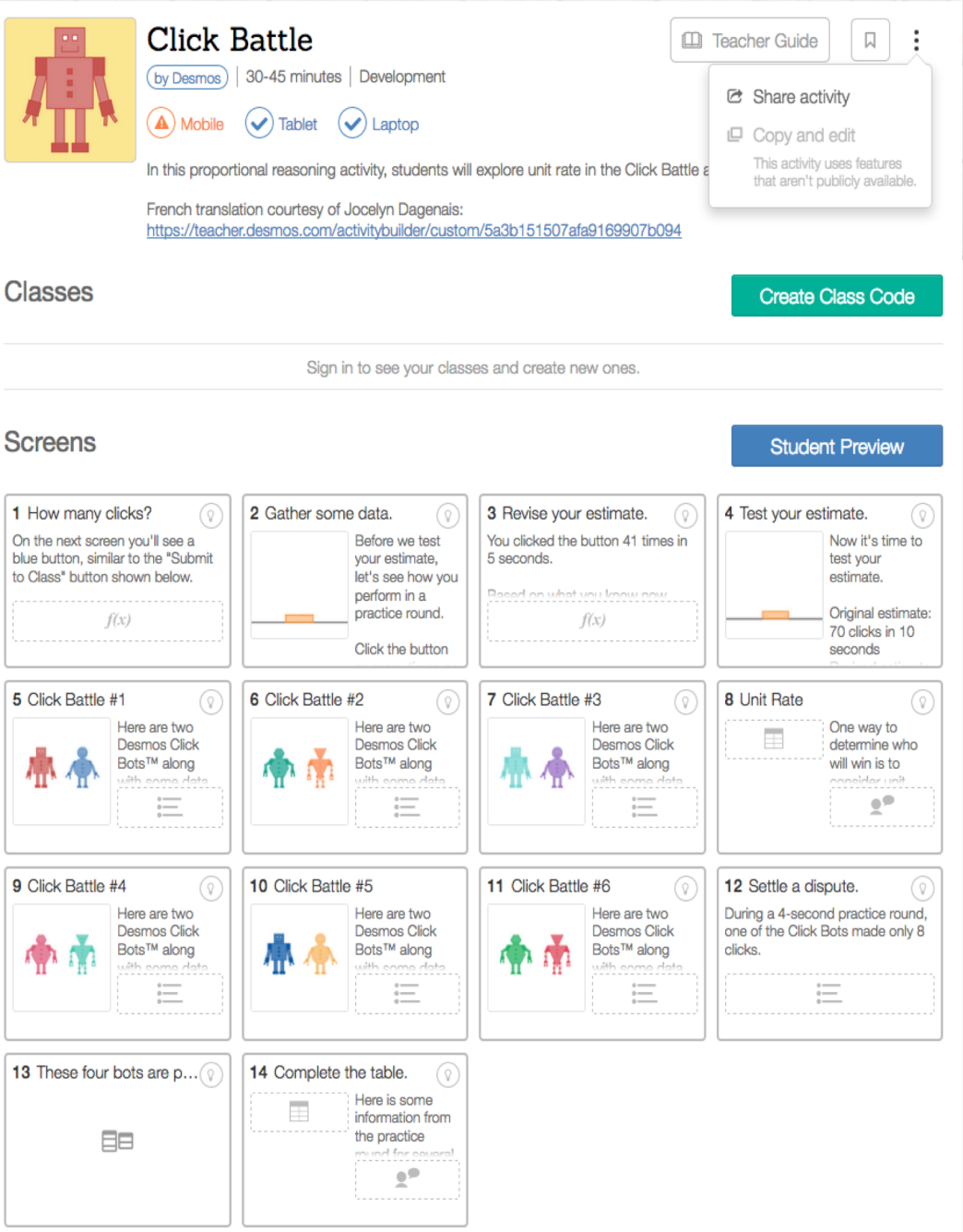
Not everything should be Desmo-fied

Lesson #2

"The goal is to have *students* do as much thinking as possible"

Eli Luberoff

Desmos



http://tinyurl.com/clickbattle

Lesson #3

Use Desmos for growth mindset activities:

Lesson #3

“Safe” tasks

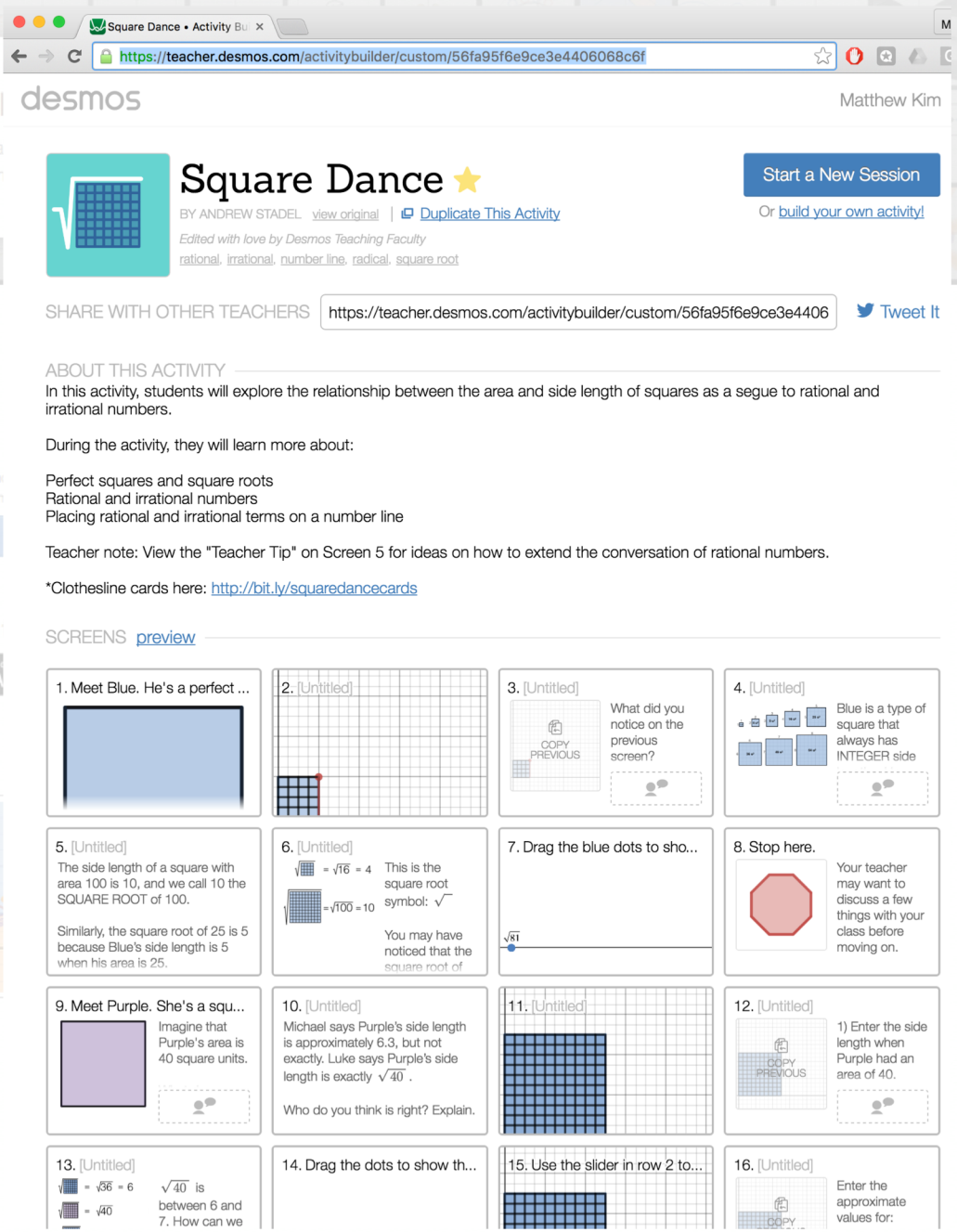
Multiple representations

Multiple solutions

Open-ended

Low floor, high ceiling

Desmos



http://tinyurl.com/squaretango

Lesson #4

Think dynamically: Explore connections through movement

- What does the m do in $y = mx$?
- What does the a do in $y = ax^2$?
- How are different representations related?

Lesson #4

Think dynamically: Explore connections through movement

- What does 8.EE.6 ask students to do?
- What might be a goal for a lesson on this standard?

Lesson #4

Think dynamically: Explore connections through movement

- **8.EE.6** is about using similar triangles to show that points on the same line form triangles that have the same ratio of legs, i.e., constant rate of change

Lesson #4

Think dynamically: Explore connections through movement

https://tinyurl.com/slope-triangles

- What are students asked to do?
- What are the “ahas” that they might experience?

4 Guidelines

Start with a clear goal

Focus on making connections

Keep it simple

“Copy and edit” from others

Field Trip Problem Name_____

Graph the information from all four tables on the same grid and answer the questions.

Use the tables below to show how many total **people** are on the bus for each minute.

1. The Blue Bird bus is empty because the driver is talking to his friends from the other bus. Then 5 students get on the bus each minute.

2. The Gillig bus has 1 driver and 3 paraprofessional aides onboard before the students arrive. Then 5 students get on the bus each minute.

3. The Crown bus has 1 driver and 7 paraprofessional aides onboard before the students arrive. Then 5 students get on the bus each minute.

4. The Thomas Built bus has 1 driver and 9 parents onboard before the students arrive. Then 5 students get on the bus each minute.

1. What patterns do you notice in each table?

2. What do you notice about each line? What is the same? What is different?

3. What is the equation for each line?
   Blue Bird Bus
   Gillig Bus
   Crown Bus
   Thomas Build Bus

Record how many people are on the bus for each minute.

Blue Bird Bus | **Gillig Bus** | **Crown Bus** | **Thomas Built Bus**

Let's Desmo-fy It

How can we teach the concept of *y*-intercept?

- **What do the standards say?**
- **What are the key ideas and concepts?**
- **What is the mathematical goal of a lesson?**

Go to teacher.desmos.com

(sign in or create account)

- **Select "Custom" in the left menu bar**
- **Click on "New Activity" on the top**
- **Name your activity**

Thank You

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For more information and handouts

https://tinyurl.com/icmathnctm