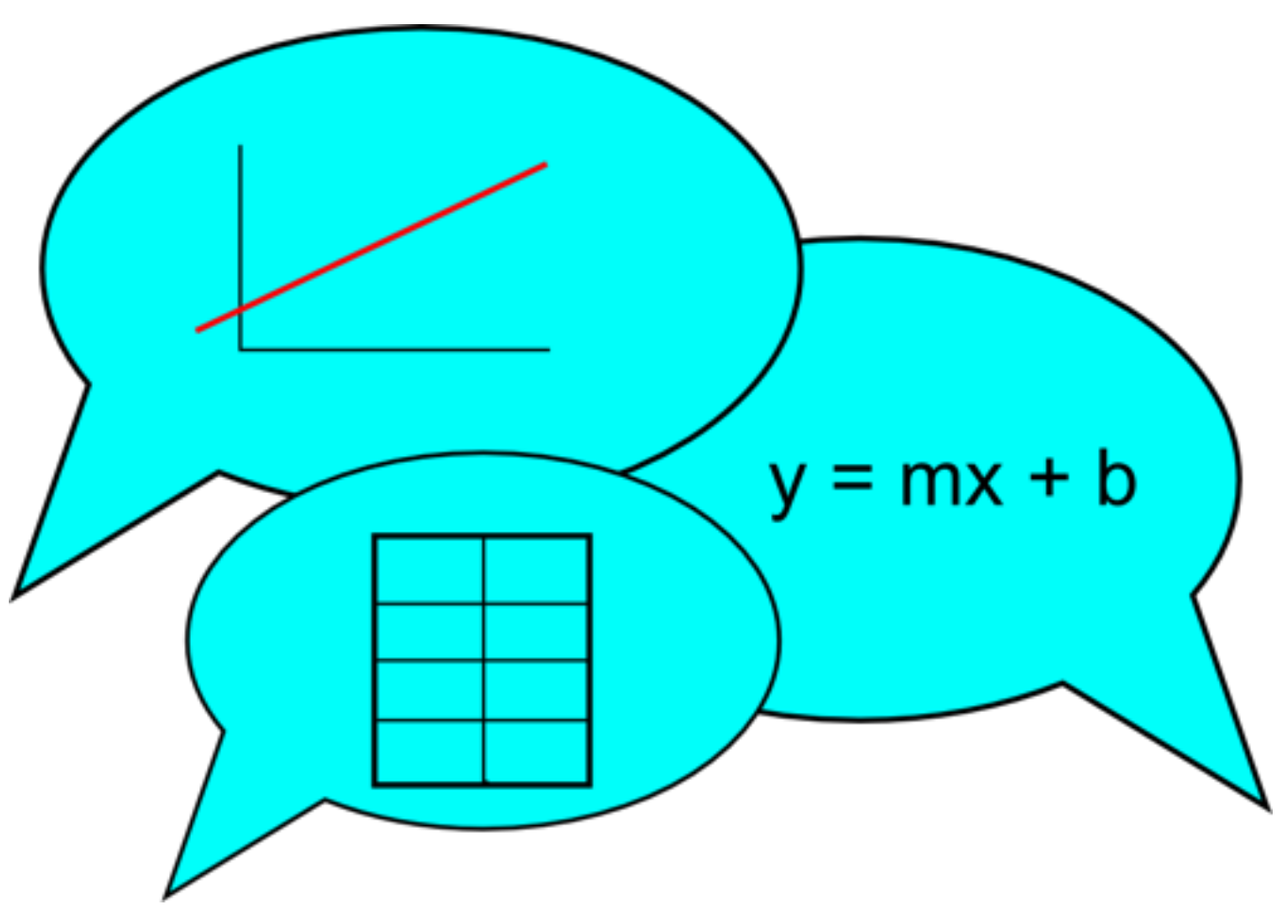
Math Talk: Promoting Equitable Mathematical Discourse

Geoff Krall | NTN School Development Coach
gkrall@newtechnetwork.org |
Twitter: @geoffkrall

NTAC 2016



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Objective

Have some fun experiencing activities that promote mathematical classroom discourse

Optional Objective (for you do-gooders out there)

Draw some generalizable principles around equitable mathematical discourse.

Discourse Producing Activities

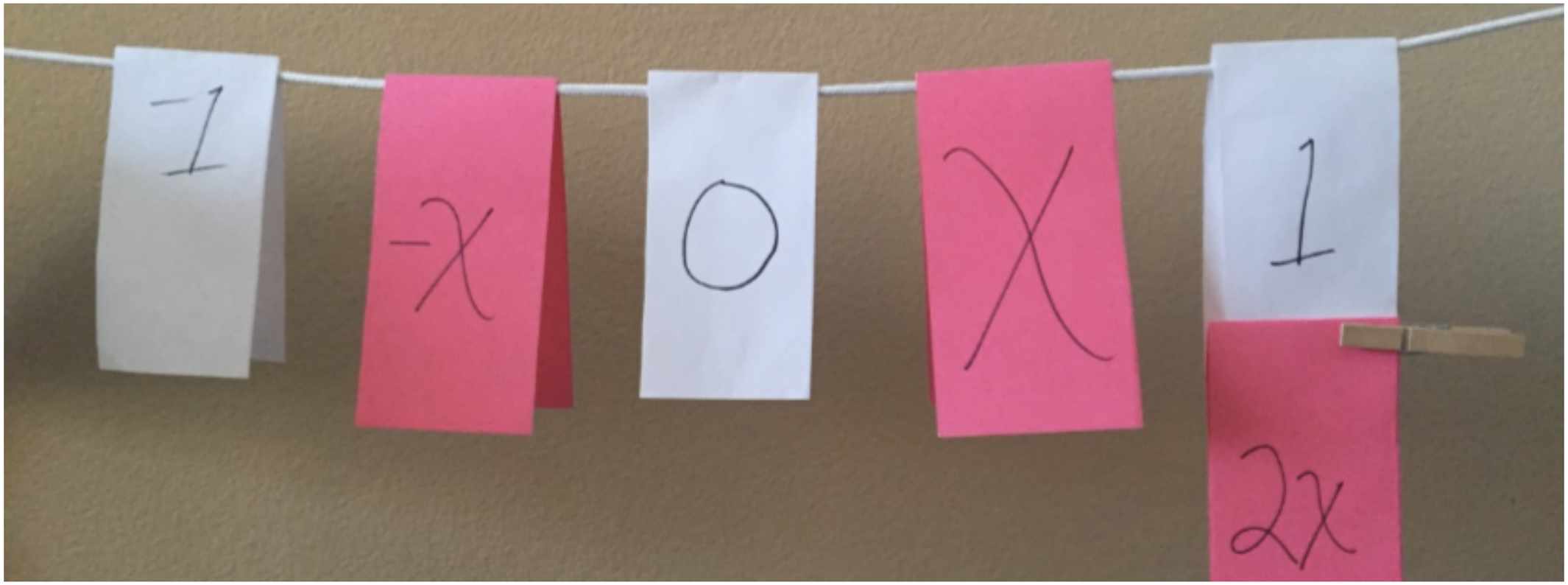
Clothesline Math

Which One Doesn't Belong

Desmos: Polygraph

Quarter the Cross

Clothesline Math



dyson airblade

The fastest, most hygienic hand dryer.

The Dyson Airblade™ hand dryer works in [redacted] seconds – literally scraping water from hands like a windshield wiper.

It's also hygienic – cleaning the air before blowing it onto hands.

And it uses up to 80% less energy than warm air hand dryers, meaning it costs less to run and is better for the environment.

AB 02 Aluminum

AB 04 PC-ABS

dyson airblade

The fastest, most hygienic hand dryer.

The Dyson Airblade™ hand dryer works in just 12 seconds – literally scraping water from hands like a windshield wiper.

It's also hygienic – cleaning the air before blowing it onto hands.

And it uses up to 80% less energy than warm air hand dryers, meaning it costs less to run and is better for the environment.

AB 02 Aluminum

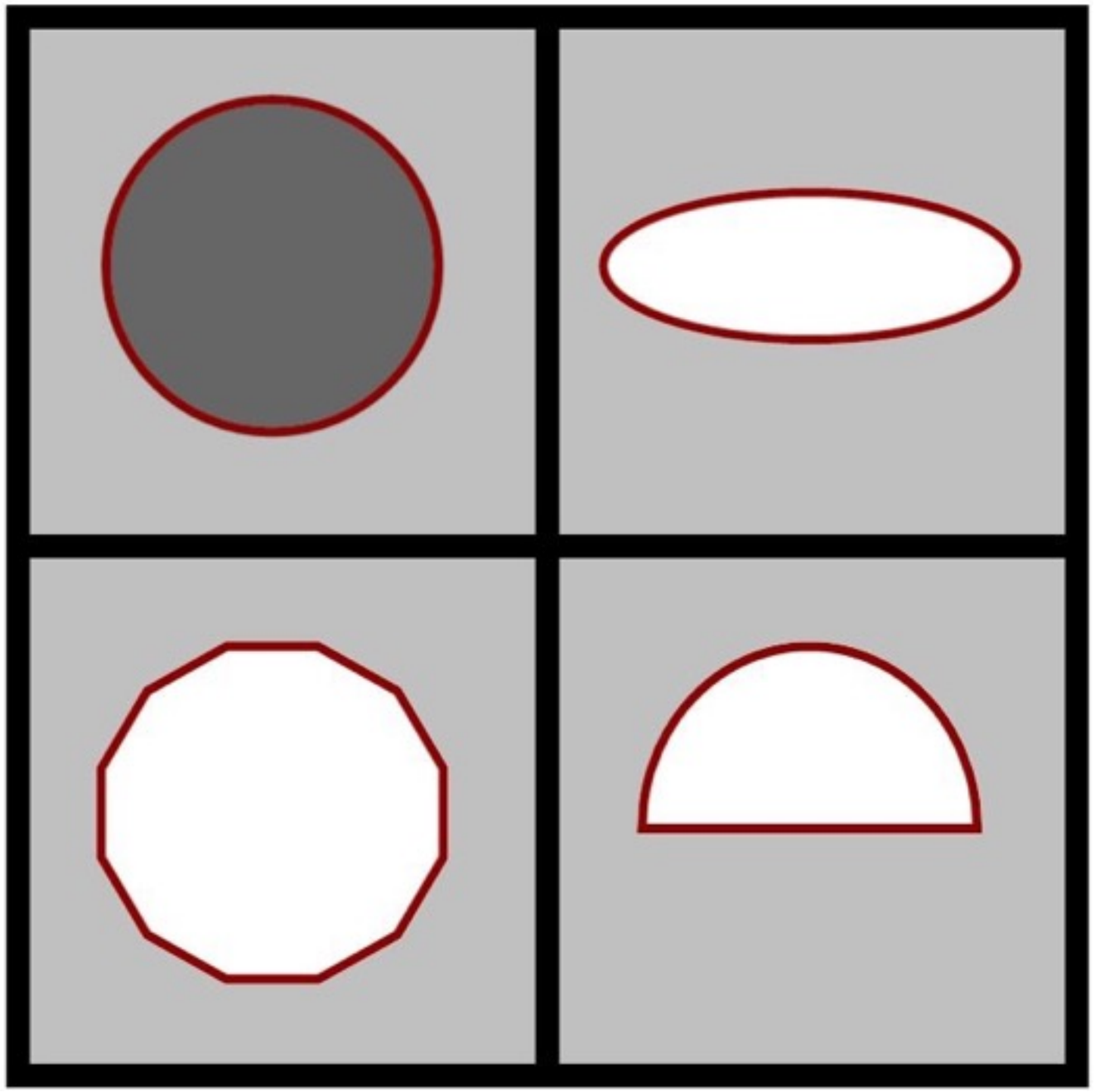
AB 04 PC-ABS

$$x+3=8$$

$$2x = 32$$

$$3x+6=24$$

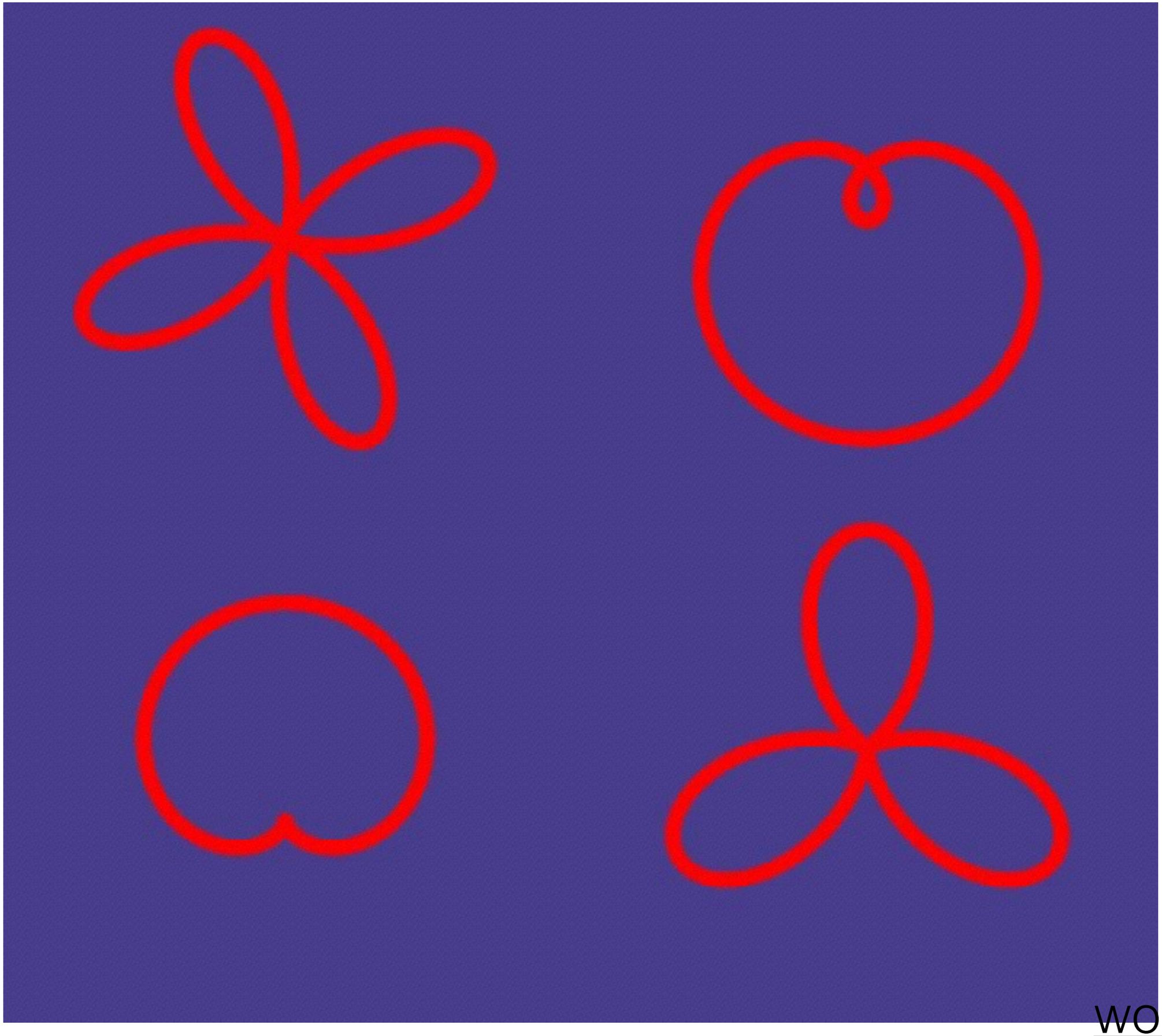
Which One Doesn't Belong



wodb.ca

E	H
F	C

wodb.ca



17	26
44	65

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$y = 4x + 3$	$y = -4x + 5$
$y = \frac{1}{4}x + 5$	$y = 4x - 5$

wodb.ca

?	125
216	8

wodb.ca

Desmos: Polygraph (Quadrilaterals)

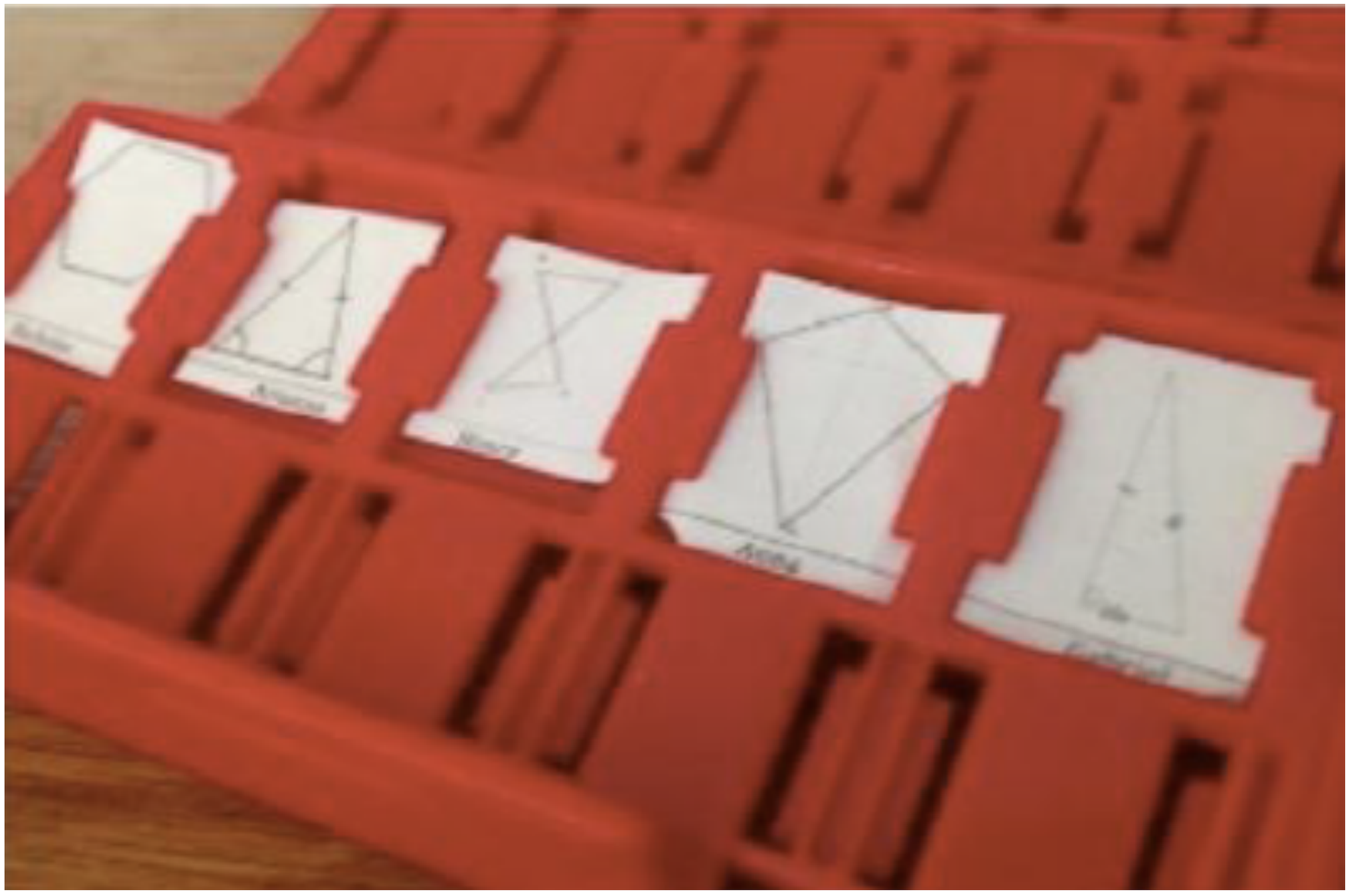
Go to:

student.desmos.com

Enter code: “XXXX”


JOSHUA
EMILY
ANDY
DANIEL


The Classic Mystery Face Game
GUESS WHO?
WHO IS IT?
Ask questions and get closer to uncovering the secret identity!
JOSHUA
AMY
ANNE
EMMA
DAVID

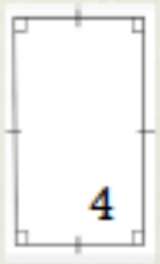


Quads & Triangles


1


2


3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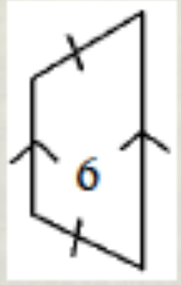
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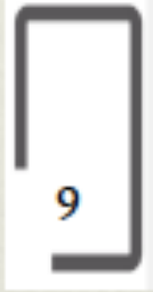
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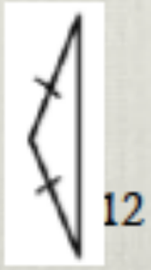
11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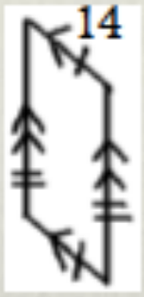
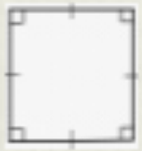

14


15

Lines, Closed vs Open Figures, & Beginning Quads


1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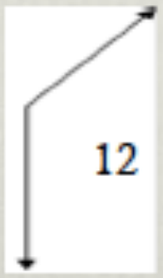
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Closed Figures focused on Sides & Vertices


1


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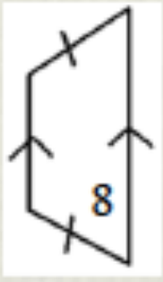
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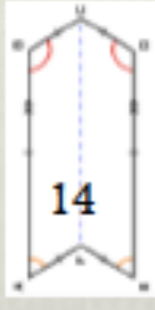

14

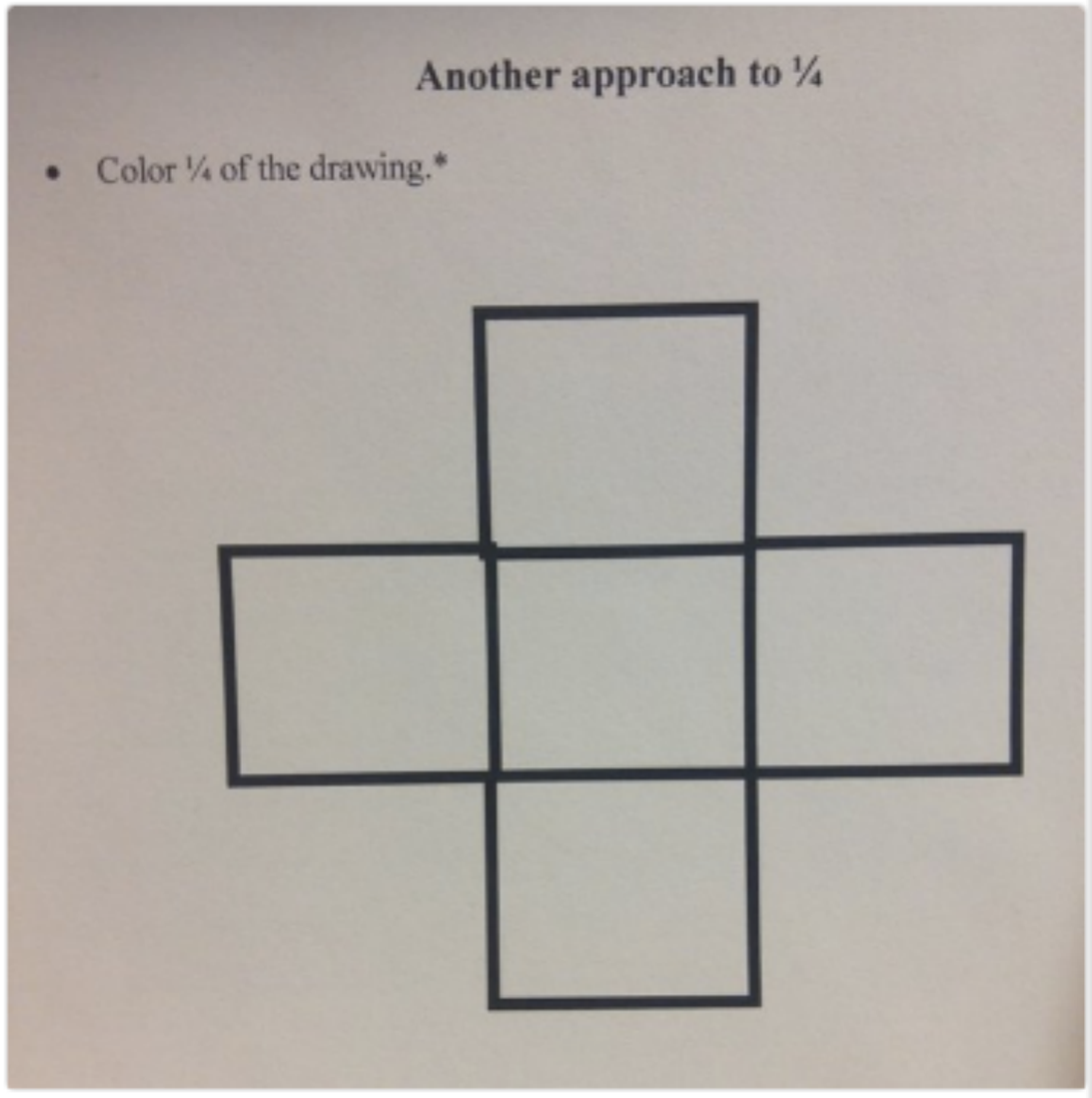

15


90 29 40 22 71 85
86 99 73 16 52 21
14 79 65 32 93 48
37 43 68 54 17 27
99
65 29 90 89 43 93
22 73 16 40 79 14
21 52 17 27 54 99
86 85 71 48 37
52

Heather Kohn
@heather_kohn

Following

Color 1/4 of the drawing to play along at home #pcmiTLP



RETWEETS 5 LIKES 12

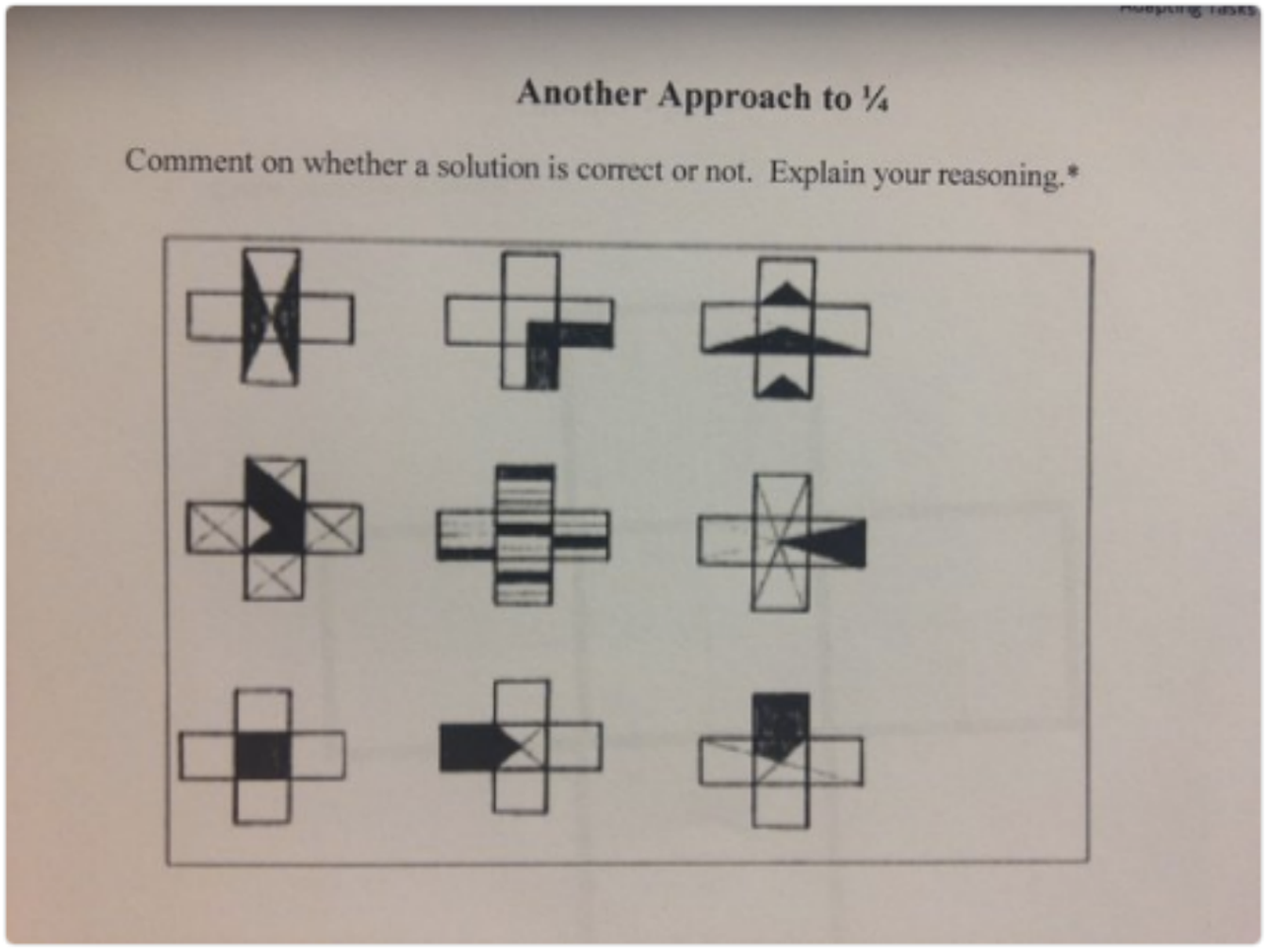
12:53 PM - 5 Dec 2015

5 12

Heather Kohn
@heather_kohn

Following

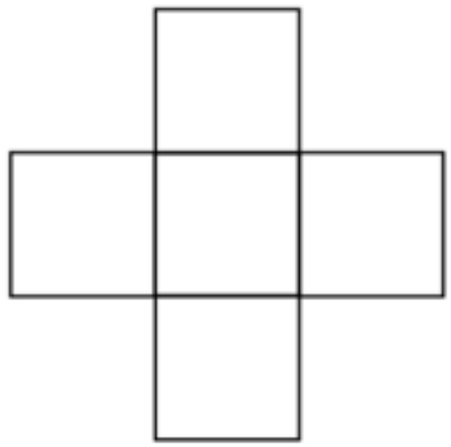
Which of the following show 1/4? #pcmiTLP #playathome



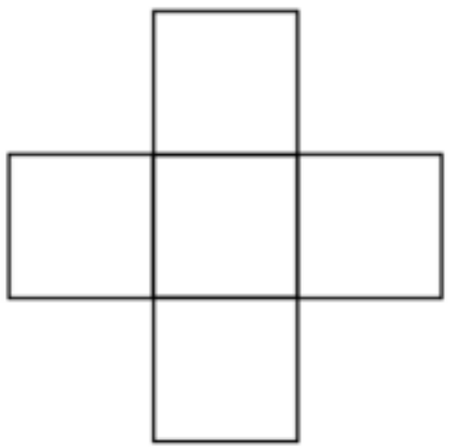
RETWEETS 31 LIKES 65

1:06 PM - 5 Dec 2015

Shade exactly 1/4 of the shape below.



OK now shade 1/4 again, but do it *differently*. Try to make it look as different as possible.



Trade shaded shapes with your neighbor to see how they did it.

How can you be sure that you've shaded exactly 1/4?

Can you convince your neighbor that you've shaded exactly 1/4?

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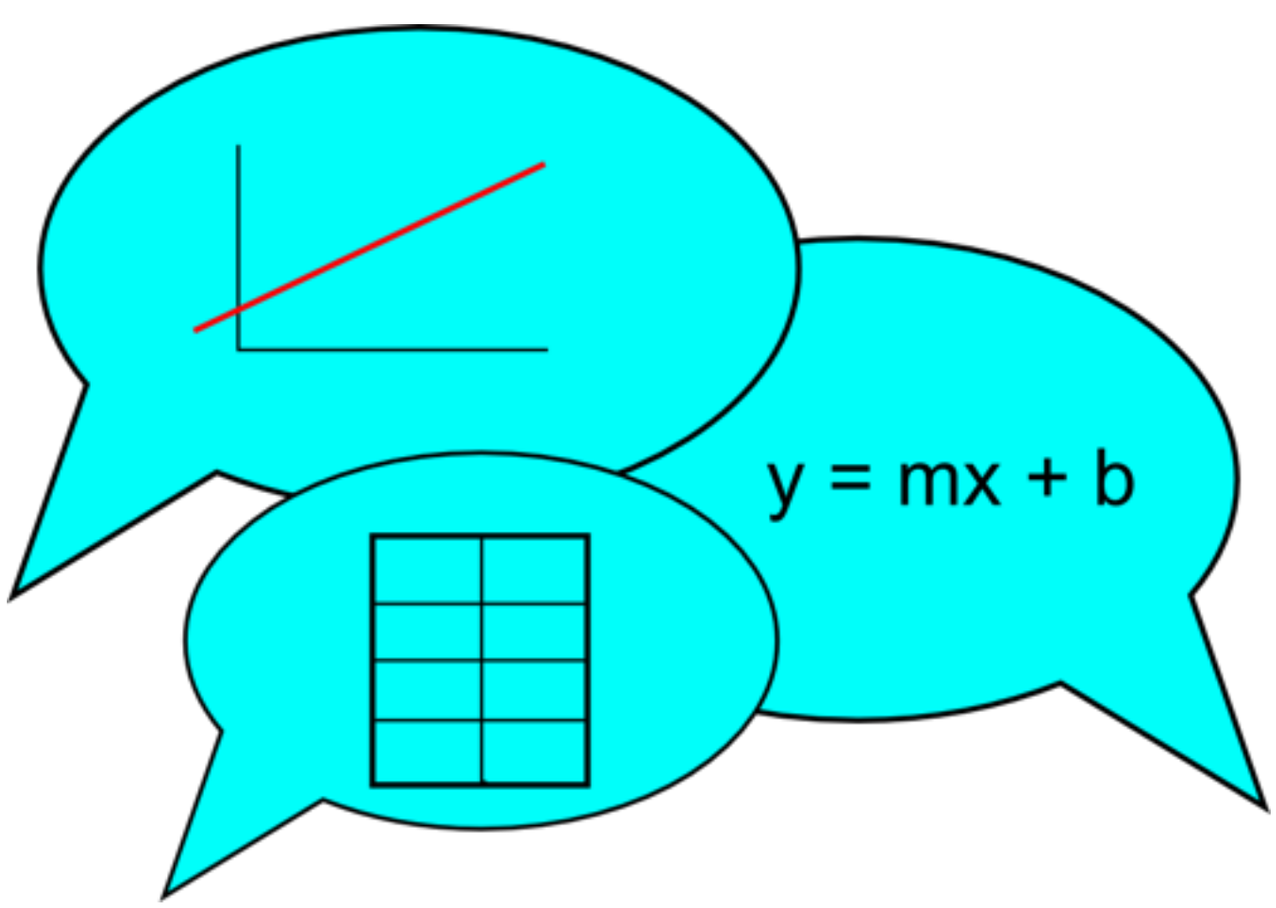

Additional resources at emergentmath.com/mathtalk