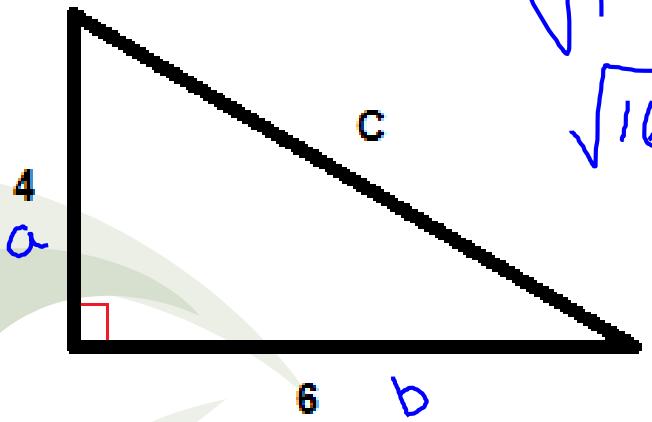
Monday, February 4, 2019

Comments
- Good about Mon. comp.
- Bad about Monday ichan Acad.

- Warm-up

$a^2+b^2=c^2$

  - **Calculate the lengths of the missing sides of the triangles**

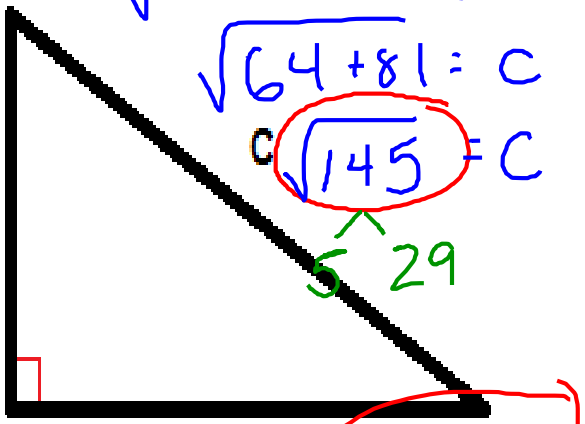


$\sqrt{4^2+6^2}=\sqrt{c^2}$

$\sqrt{16+36}=c$

$\sqrt{52}=c=2\sqrt{13}$

7.211



$\sqrt{8^2+9^2}=\sqrt{c^2}$

$\sqrt{64+81}=c$

$\sqrt{145}=c$

5 29

≈12.041

- Calculating Distance
- Calculating Midpoint

52

2 26

2 13

Content Objective: I will use formulas to calculate distance and midpoint.

Social Objective: I will listen carefully and ask questions when I do not understand.

Language Objective: I will take clear notes to calculate distance.

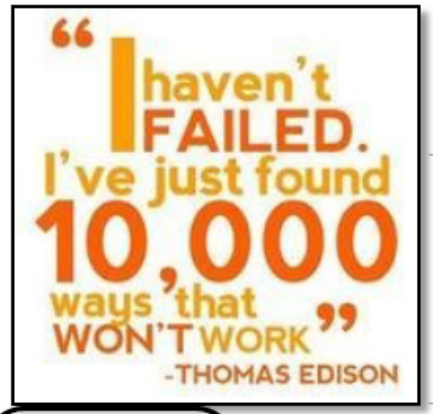
Team Builder

Group number
& names

"If we had a million dollars..."
We would buy

Unit Sheet

Math 2 Block
Unit 3
Coordinate Methods



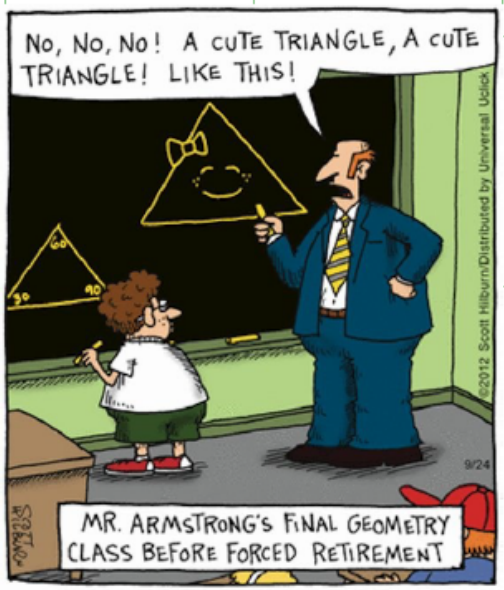
Video: Distance, Midpoint & Slope

http://bit.ly/2DF3d4Q

Video: Translations, Reflections, Rotations

http://bit.ly/2Gd84YJ

4 **Computer Lab** Distance Formula	5 Calculating Slope and its uses	6 Classifying Shapes Day 1	7 Classifying Shapes "Performance"	8 **NO SCHOOL In-Service Day**
11 **Computer Lab** More with Area & Perimeter	12 Circles	13 Review	14 **Unit 3 Test A**	15 **NO SCHOOL In-Service Day**
18 **NO SCHOOL Presidents' Day**	19 Coordinate Translations	20 Coordinate Reflections	21 Coordinate Rotations	22 Coordinate Dilations
25 **Computer Lab** Coordinate Composite Transformations	26 Review	27 **Unit 3 Test B**		



Characteristics of Quadrilaterals

Parallelogram:

Rectangle:

Rhombus:

Square:

Trapezoid:

Kite:

Slope Formula	Midpoint Formula
Parallel: Perpendicular:	Distance Formula

Characteristics of Triangles

Right

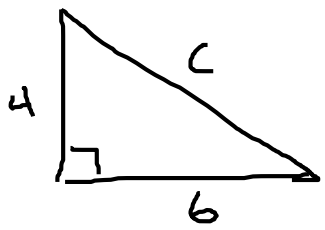
Isosceles

Equilateral

Scalene

Geometric Idea	Coordinate Model
Translation	
Reflection across x-axis	
Reflection across y-axis	
Reflection across line y = x	
Reflection across line y = -x	
90° counterclockwise rotation	
180° rotation	
270° counterclockwise rotation	

Distance



Formulas

Pythagorean theorem:

$a^2 + b^2 = c^2$ → $\sqrt{a^2 + b^2}$

Distance Formula

$$d = \sqrt{(y_2 - y_1)^2 + (x_2 - x_1)^2}$$

$$\sqrt{(-2+4)^2 + (-3-5)^2}$$

$$\sqrt{(2)^2 + (-8)^2}$$

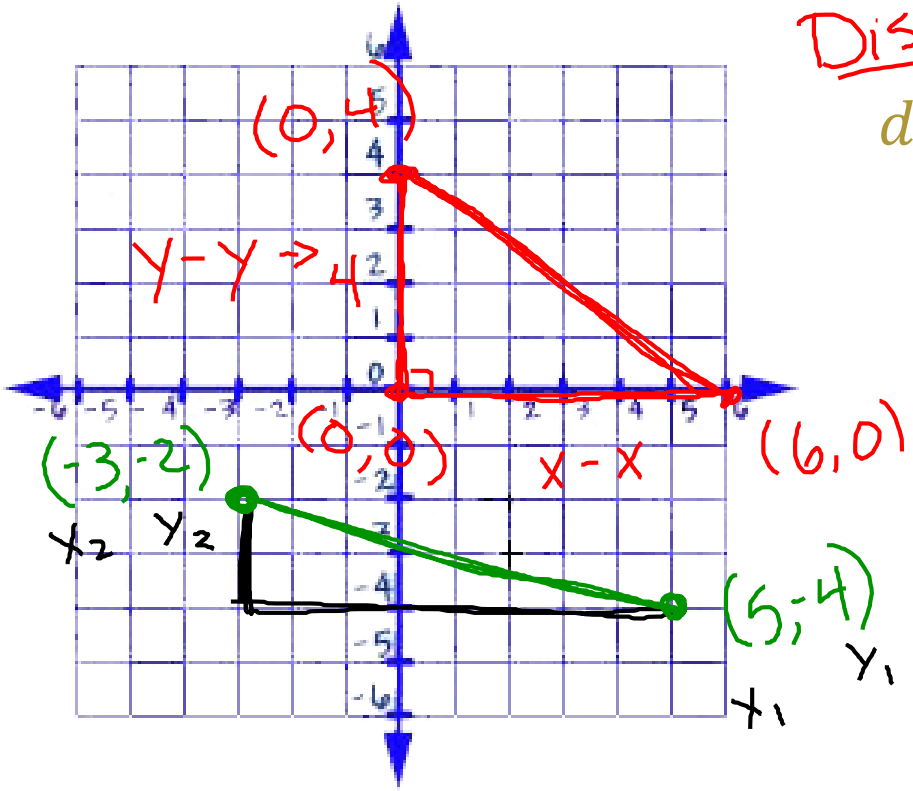
$$\sqrt{4 + 64}$$

$$\sqrt{68} = 2\sqrt{17}$$

$$\approx 8.24$$

4 17

2 2



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$d = \sqrt{(y_2 - y_1)^2 + (x_2 - x_1)^2}$

$(-4, 2)$ x_1 y_1

$(4, 3)$ x_2 y_2

$d = \sqrt{(3-2)^2 + (4-4)^2}$

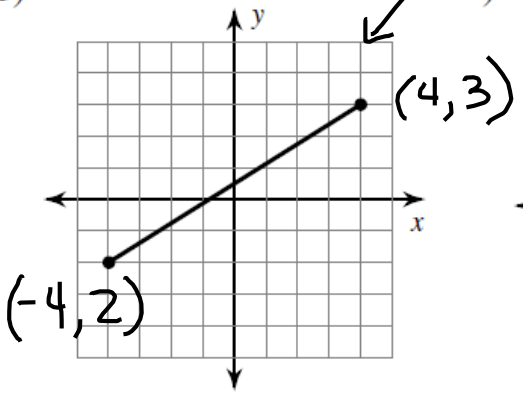
$= \sqrt{1^2 + 8^2}$

$= \sqrt{1 + 64} = \sqrt{65}$

≈ 8.06

Practice…

1)



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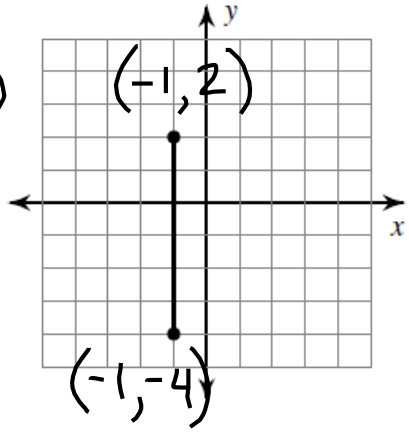
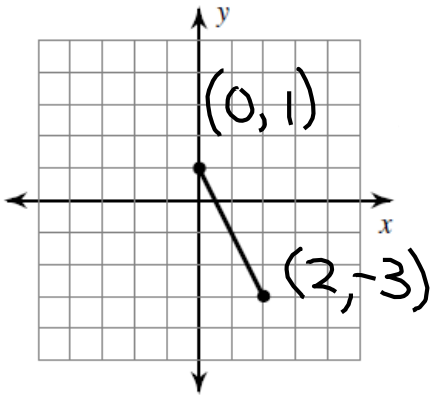
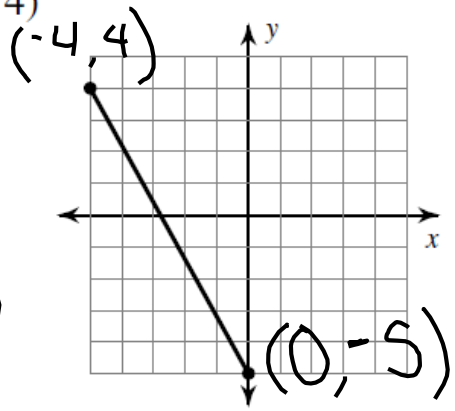


3)



4)



5) (−1, 2), (2, −4)

6) (4, 3), (−3, 4)

7) (0, 4), (2, 3)

8) (4, 0), (−4, 1)

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