

# Agenda

## Homework:

- Distance Formula WS
- AM

## Materials:

- Math Notebook

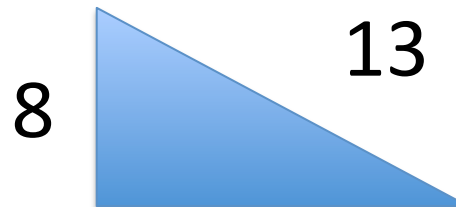
## Do Now:

1. Take out homework

2. **ON YOUR DESK:**

$$(3.2 \times 10^3)(2.1 \times 10^8)$$

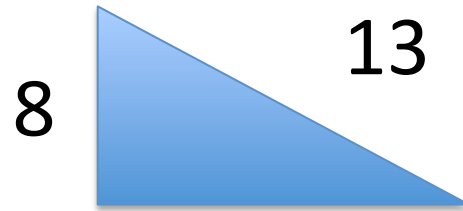
**Find the missing side:**



# Do Now

$$(3.2 \times 10^3)(2.1 \times 10^8)$$

Find the missing side:



# Homework Review

# Set Up Cornell Notes



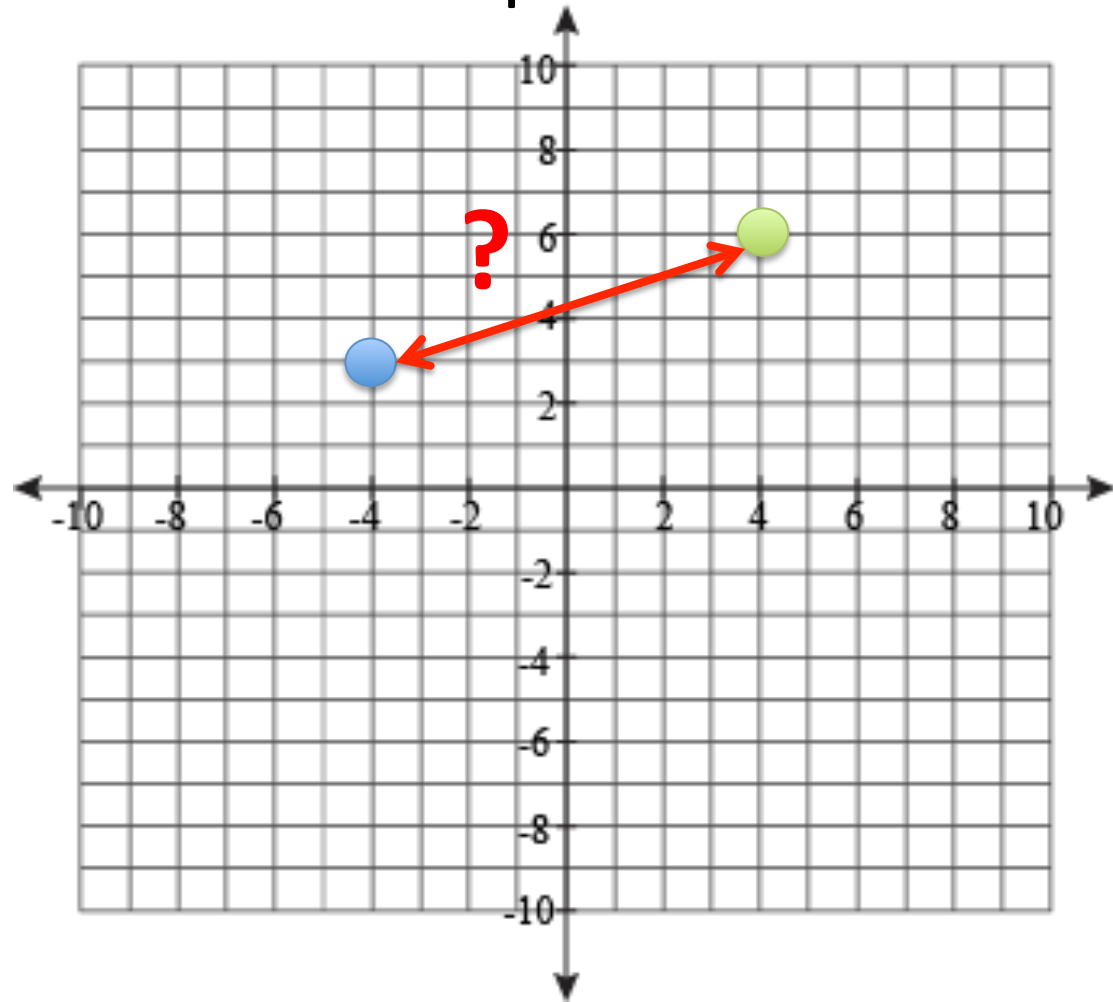
- **Topic:** Distance Formula
- **EQ:** What is the distance formula and how do you use it to find the distance between two points?

## Update Table of Contents

Date	Topic
12/2 (Pd. 1&2)	Distance Formula
12/5 (Pd. 4)	

# Objective

- To find the distance between 2 points on a coordinate plane



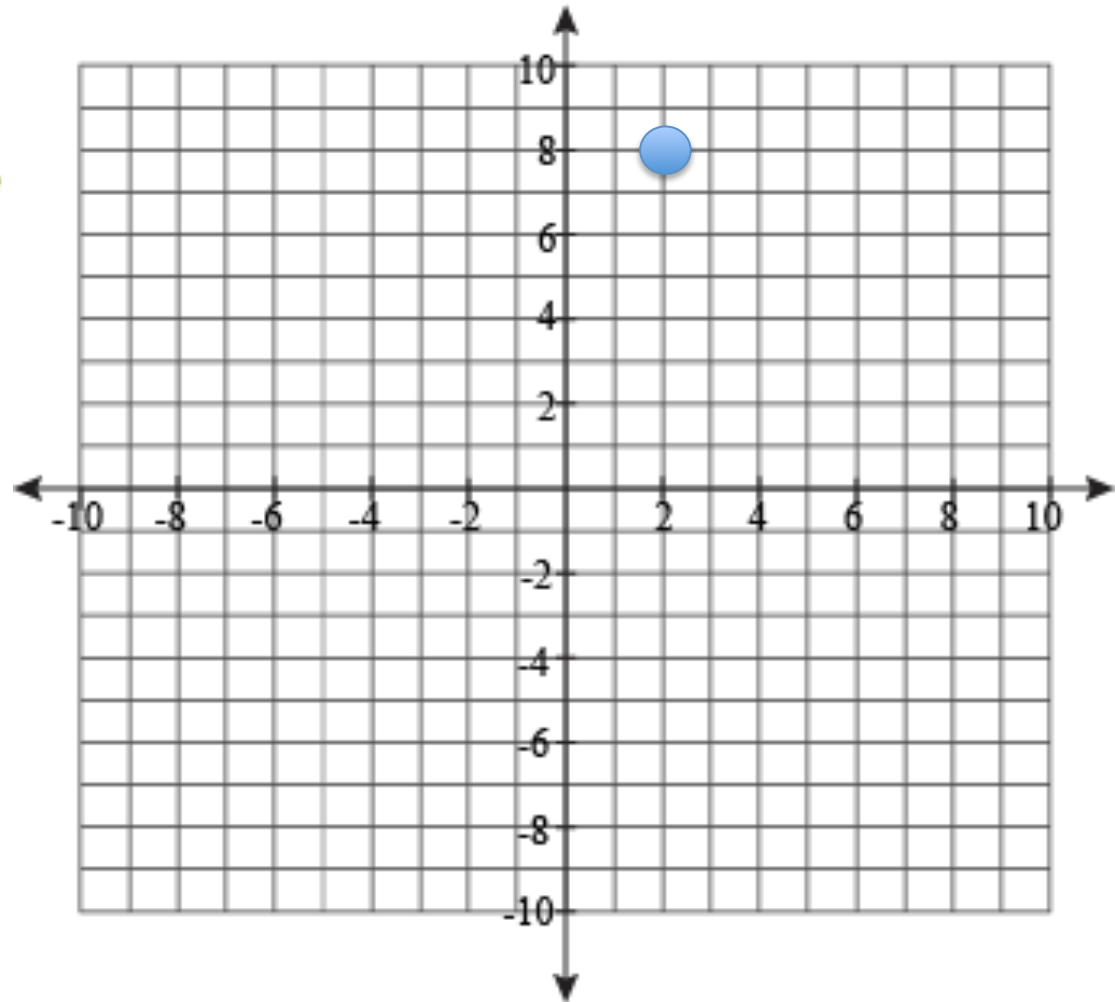
What are the different parts of a coordinate?



**(2, 8)**

**x-coordinate** (pointing to 2)

**y-coordinate** (pointing to 8)

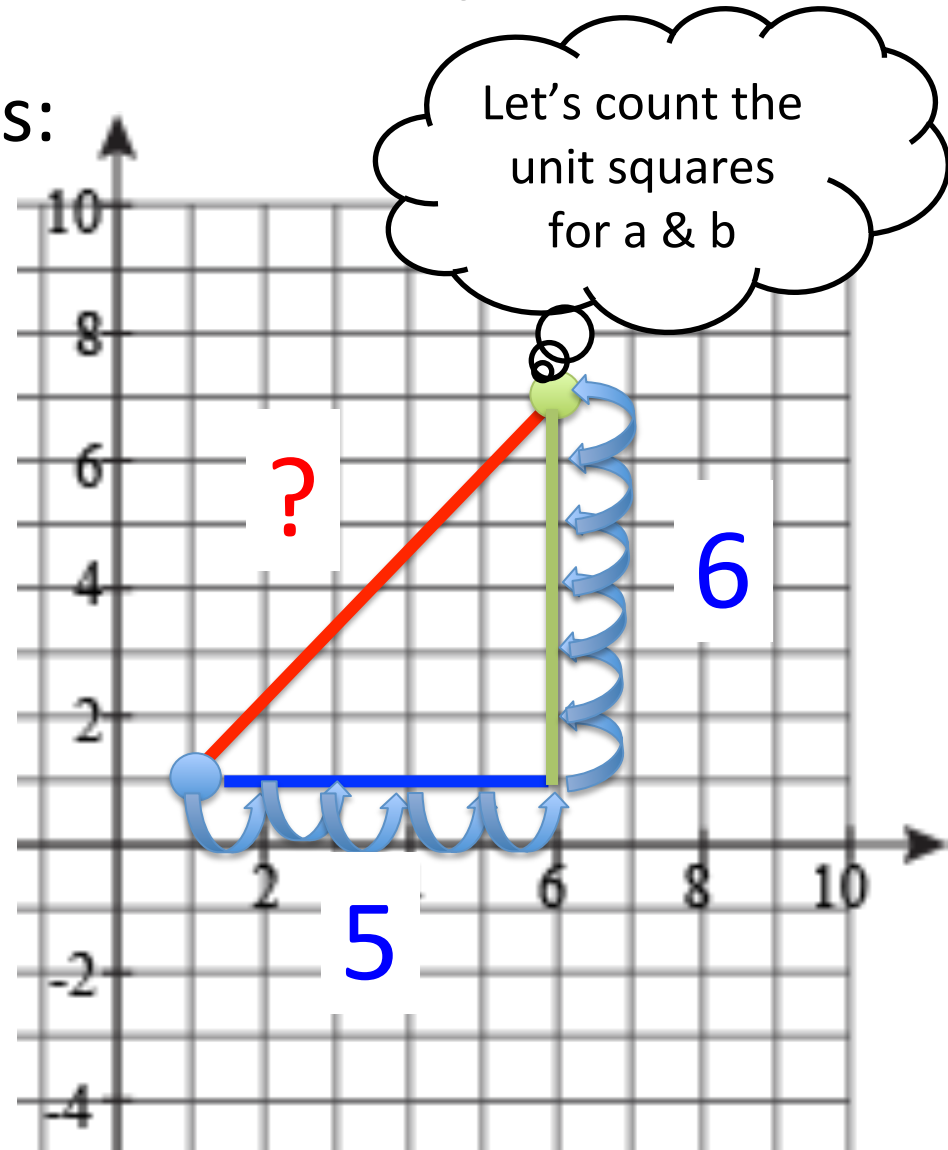


# How can we use the Pythagorean Theorem to find the distance between 2 points?

- Let's say I have 2 points:  
(1, 1) and (6, 7)

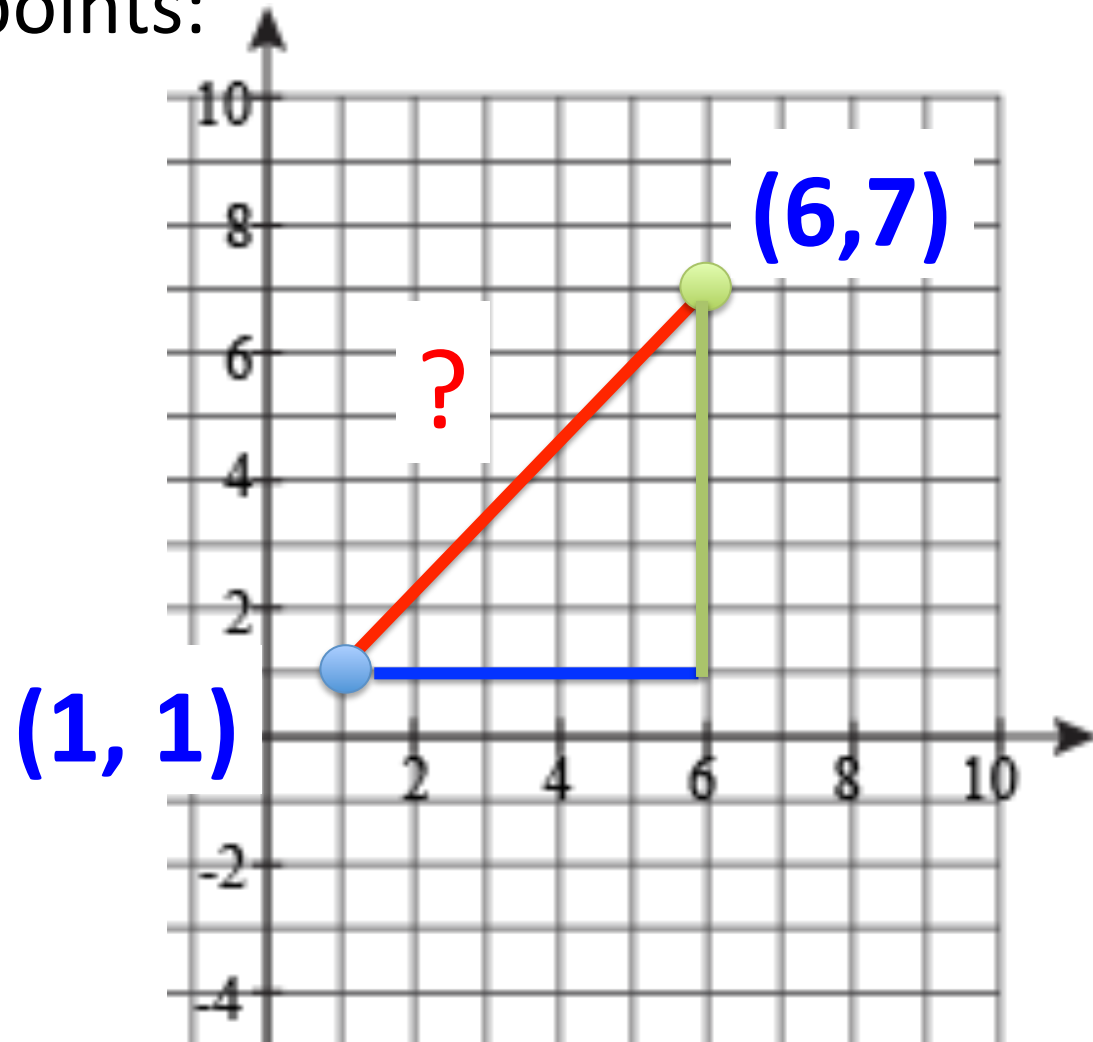
Do you see the right triangle?

$$\begin{aligned} (5)^2 + (6)^2 &= c^2 \\ 25 + 36 &= c^2 \\ \sqrt{61} &= \sqrt{c^2} \\ 7.8 &= c \end{aligned}$$



# What is the distance formula?

- Let's say I have 2 points:  
 $(1, 1)$  and  $(6, 7)$







# What is the Distance Formula?

- To find the distance between 2 points  $(x_1, y_1)$  &  $(x_2, y_2)$

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



# How can we use the Distance Formula to find the distance between 2 points?

- Let's say I have 2 points:

$(1, 1)$  and  $(6, 7)$   
 $x_1, y_1$        $x_2, y_2$

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

