

## What's Going On?

**Checking In**

F.F.M.

**Minds on**

How Long?

**Action!**

Length of a Line Segment

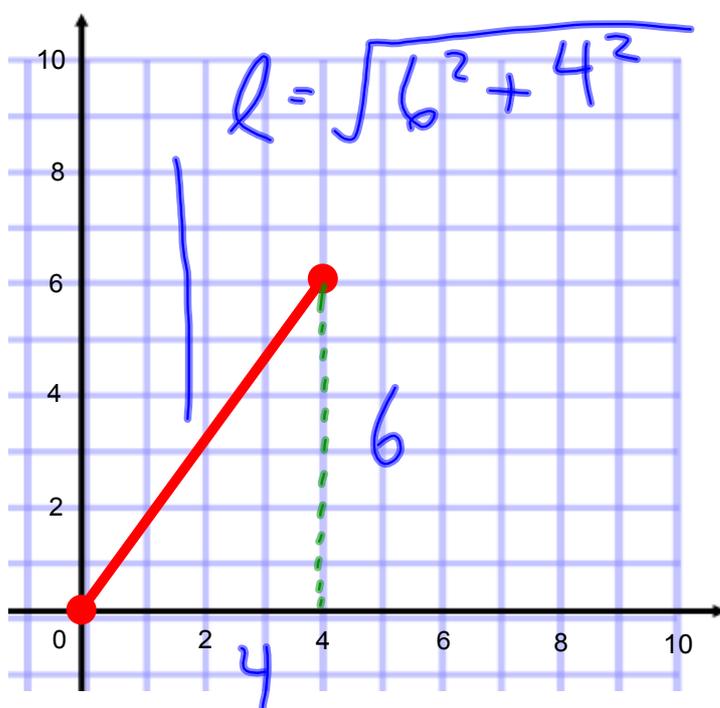
**Consolidation**

Circle Up

**Learning Goal - I will be able to determine the lengths of line segments algebraically.**

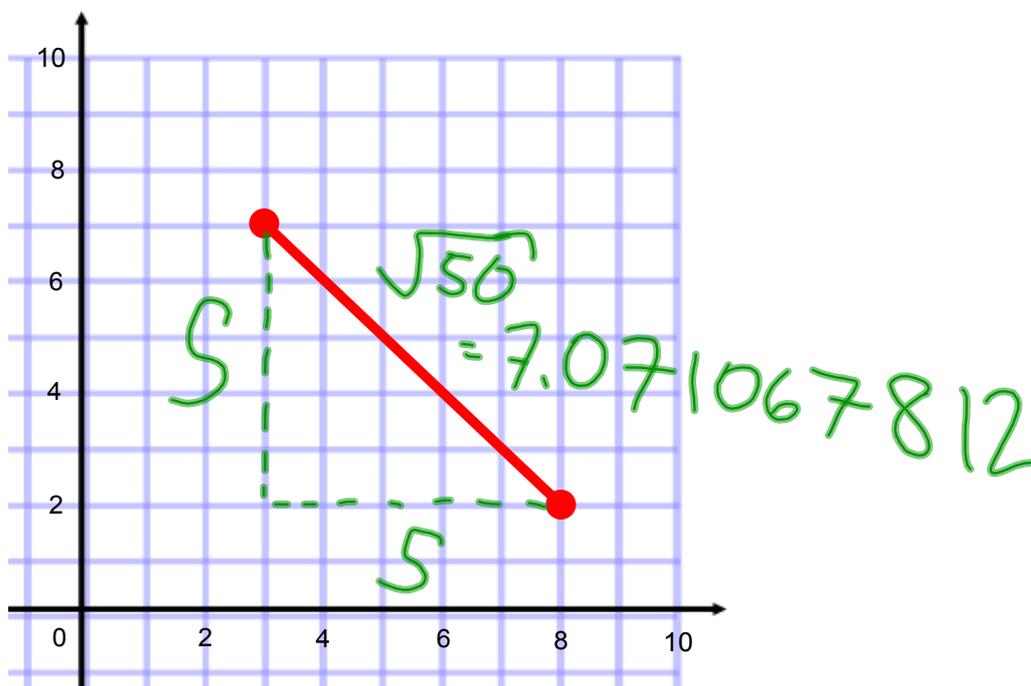
Minds on

# How Long?



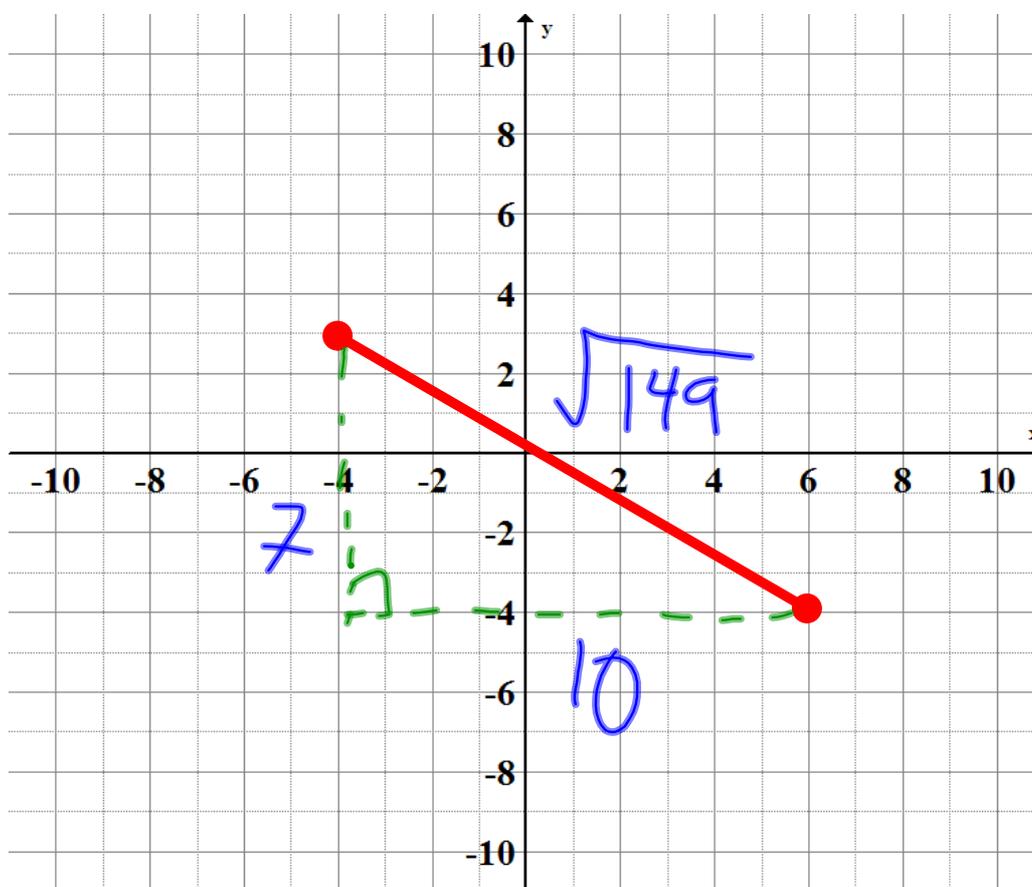
Minds on

# How Long?



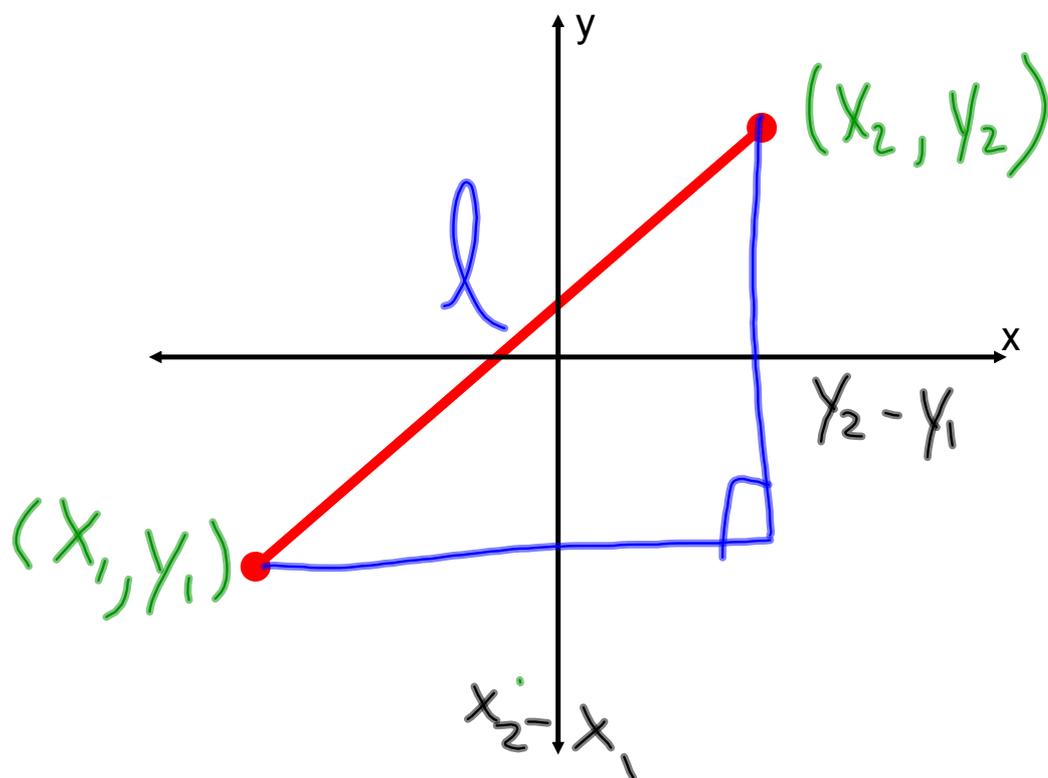
Minds on

# How Long?



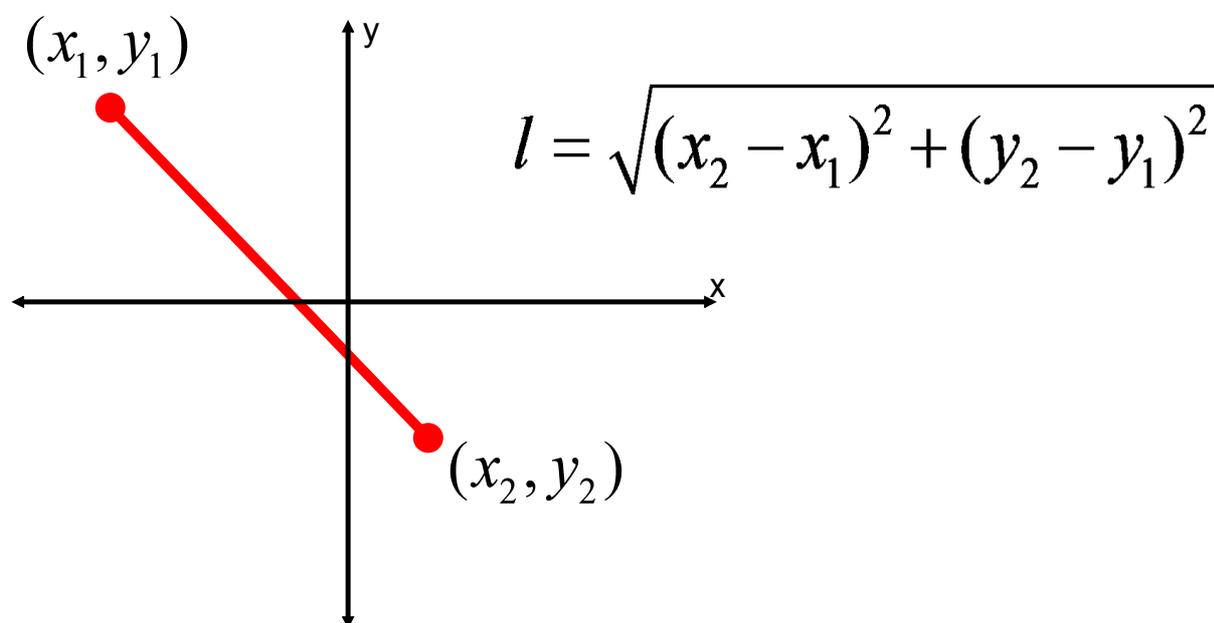
Minds on

# How Long?



**Action!**

## Length of a Line Segment



**Action!**

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

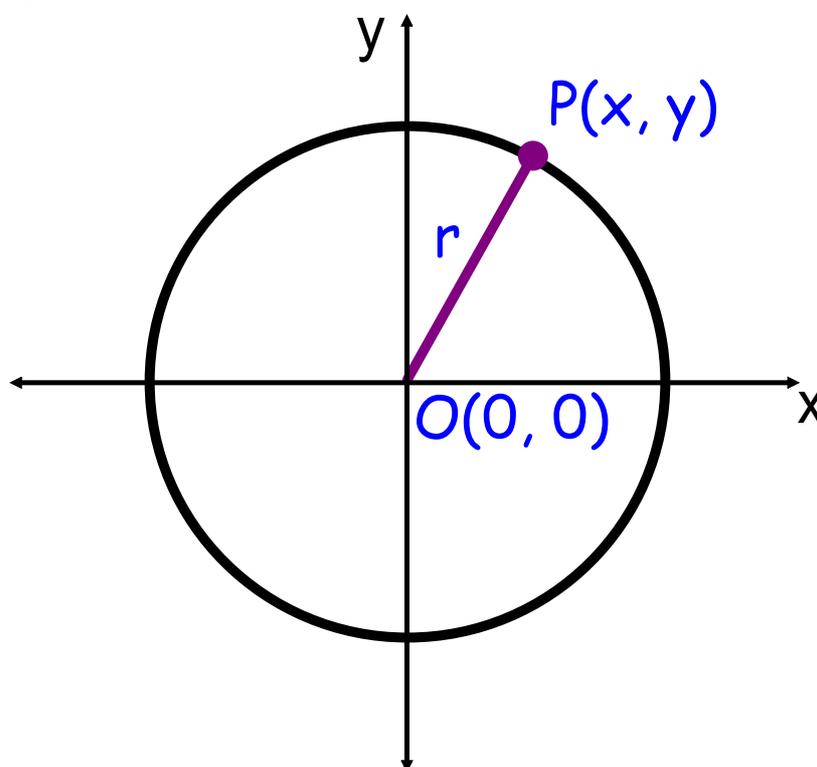
with end

A line segment ~~goes through the~~ points (3.4, -5.6) and (-1.3, -7.1).  
What's the length of the segment to two decimal places?

## Consolidation

# Circle Up!

What's the general equation of a circle centered at the origin?



## Consolidation

$$x^2 + y^2 = r^2$$

Determine the radius of a circle, with centre (0,0),  
and equation  $x^2 + y^2 = 36$

The radius is 6

## Consolidation

$$x^2 + y^2 = r^2$$

Determine the equation of a circle, with centre (0,0), that has a radius of 5

The equation is:  $x^2 + y^2 = 25$

**Consolidation**

# Homework

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**1-4, 7, 9, 16**