

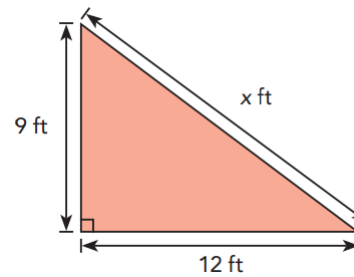
# Week 1 Wednesday Course 3 Warm-up

Find the Slope

$((19, -16) (-7, -15))$



Merlin wants to put a fence around a right triangular garden. He measures two sides. Find the length of the unknown side.



Pythagorean Theorem

Simplify the Expression  
Write in Exponential Notation

$$\frac{\left[\left(\frac{3}{5}\right) \cdot \left(\frac{3}{5}\right)^3\right]^4}{\left[\left(\frac{3}{5}\right)^2\right]^2}$$

Simplify Expression  
Write as positive exponent

$$\frac{6^3 \cdot 15^3}{(7^0)^3}$$

# Week 1 Wednesday Course 3 Warm-up

Find the Slope

$$(19, -16) \quad (-7, -15)$$

$$\frac{-15 - (-16)}{-7 - 19} = \frac{1}{-26}$$

Given two points:

$$(x_1, y_1) \quad (x_2, y_2)$$

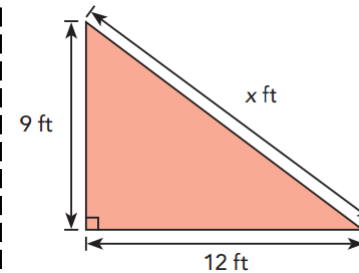
Slope Formula:

$$\frac{y_2 - y_1}{x_2 - x_1}$$

$$x_2 - x_1$$



Merlin wants to put a fence around a right triangular garden. He measures two sides. Find the length of the unknown side.



15

Pythagorean Theorem

Simplify the Expression  
Write in Exponential Notation

$$\frac{\left[\left(\frac{3}{5}\right) \cdot \left(\frac{3}{5}\right)^3\right]^4}{\left[\left(\frac{3}{5}\right)^2\right]^2}$$

$$\left(\frac{3}{5}\right)^{12}$$

Simplify Expression  
Write as positive exponent

$$\frac{6^3 \cdot 15^3}{(7^0)^3}$$

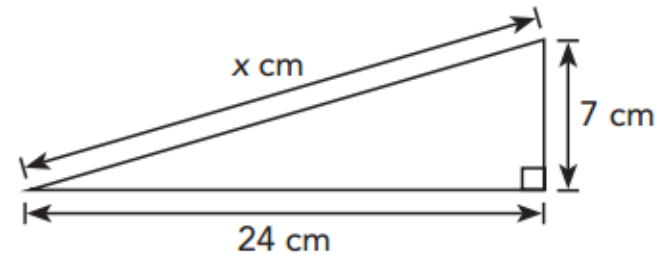
$$90^3$$

## Week 1 Thursday Course 3 Warm-up

Find the Slope  
(1, -19) (-2, -7)



## Pythagorean Theorem



Simplify the Expression  
Write in Exponential Notation

$$(a^6 \cdot a^7)^3 \div (4a^3)^2$$

Simplify Expression  
Write as positive exponent

$$\frac{2^8 \cdot (-3)^8 \cdot 3^0}{5^{-8}}$$

## Week 1 Thursday Course 3 Warm-up

Find the Slope

(1, -19) (-2, -7)

$$\frac{-7 - (-19)}{-2 - 1} = \frac{12}{-3} = -4$$

Given two points:

$(x_1, y_1)$   $(x_2, y_2)$

Slope Formula:

$$\frac{y_2 - y_1}{x_2 - x_1}$$

$$x_2 - x_1$$



## Pythagorean Theorem

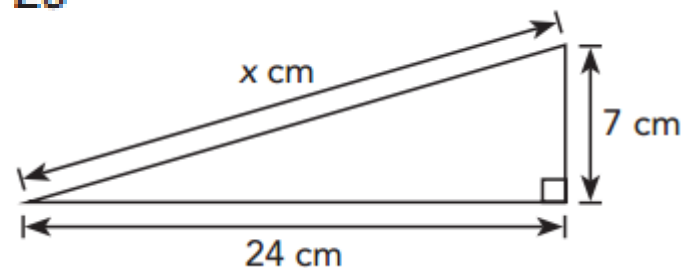
$$x^2 = 24^2 + 7^2$$

$$x^2 = 576 + 49$$

$$x^2 = 625$$

$$x = \sqrt{625}$$

$$x = 25$$



Simplify the Expression  
Write in Exponential Notation

$$(a^6 \cdot a^7)^3 \div (4a^3)^2$$

$$\frac{a^{33}}{16}$$

Simplify Expression  
Write as positive exponent

$$\frac{2^8 \cdot (-3)^8 \cdot 3^0}{5^{-8}}$$

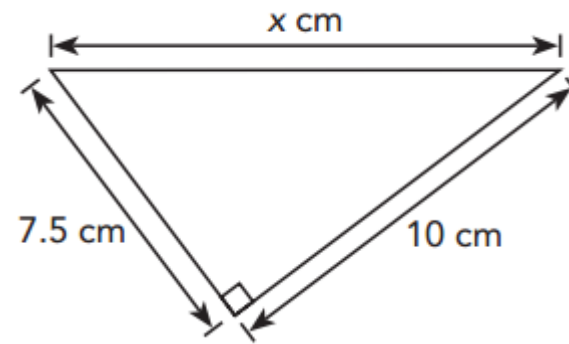
$$-30^8$$

# Week 1 Friday Course 3 Warm-up

Find the Slope  
(-4, 7) (-6, -4)



## Pythagorean Theorem



Simplify the Expression  
Write in Exponential Notation

$$63x^9y^7 \div 9x^3y^4$$

Simplify Expression  
Write as positive exponent

$$[12^2 \cdot 3^2]^3 \div 3^6$$

## Week 1 Friday Course 3 Warm-up

Find the Slope

$(-4, 7)$   $(-6, -4)$

$$\frac{-4-7}{-6-(-4)} = \frac{-11}{-2} = \frac{11}{2}$$

Given two points:

$(x_1, y_1)$   $(x_2, y_2)$

Slope Formula:

$$\frac{y_2 - y_1}{x_2 - x_1}$$

$$x_2 - x_1$$



## Pythagorean Theorem

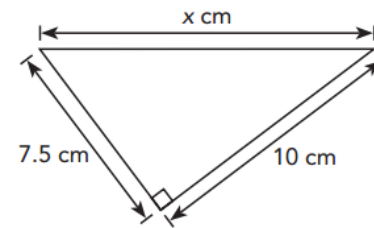
$$x^2 = 10^2 + 7.5^2$$

$$x^2 = 100 + 56.25$$

$$x^2 = 156.25$$

$$x = \sqrt{156.25}$$

$$x = 12.5$$



Simplify the Expression  
Write in Exponential Notation

$$63x^9y^7 \div 9x^3y^4$$

$$7x^6y^3$$

Simplify Expression  
Write as positive exponent

$$[12^2 \cdot 3^2]^3 \div 3^6$$

$$12^6$$