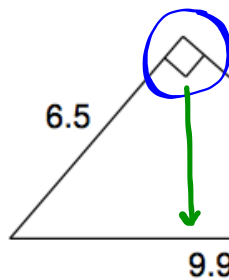


Warm Up

3/30

Find the missing length to the nearest tenth.



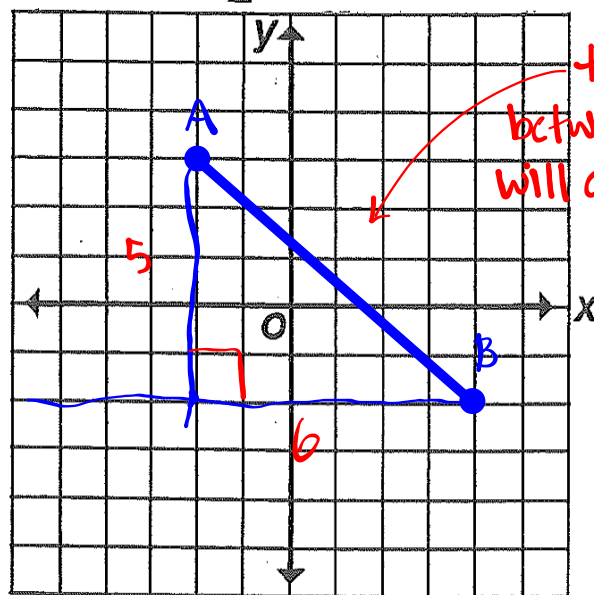
Legs ALWAYS connected by the right angle

"Tip of the square" always points to the hypotenuse.
(hypotenuse is always opposite the right angle)

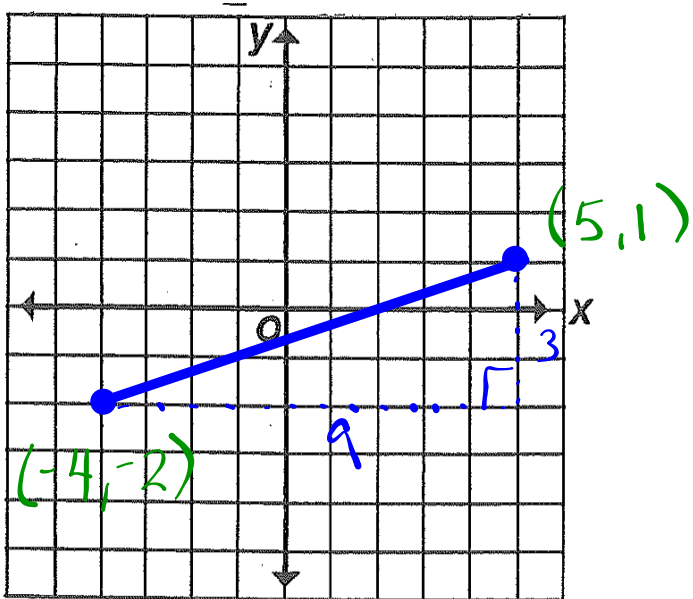
Hypotenuse is ALWAYS the longest side of a right triangle

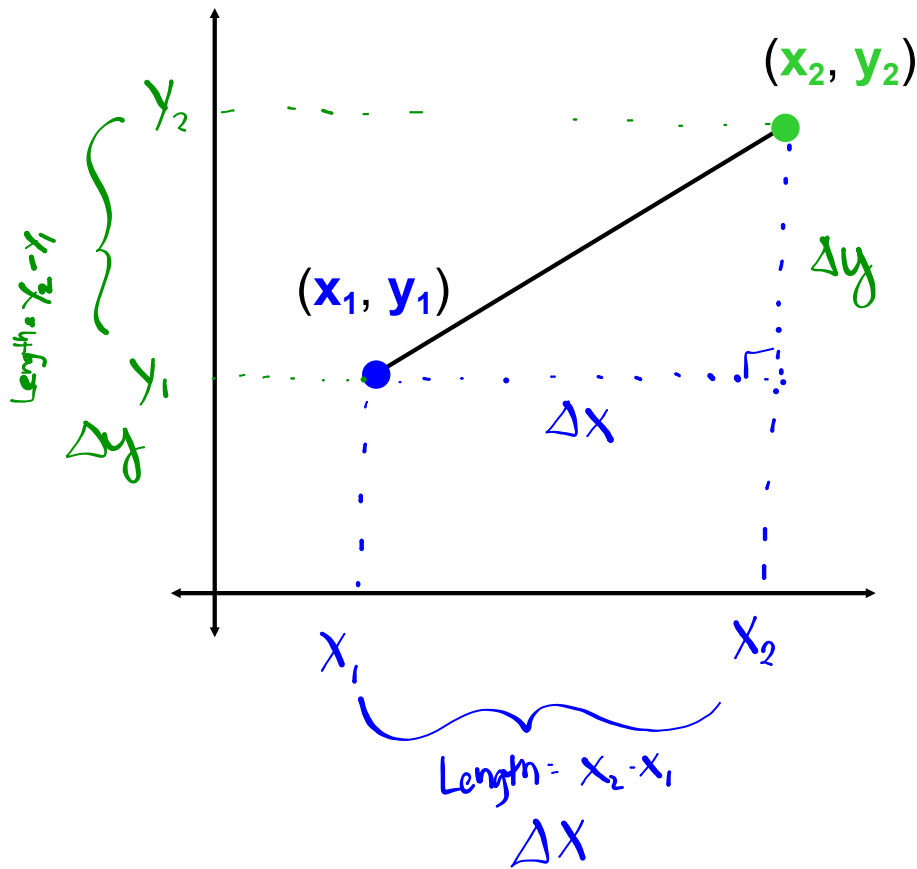
Hand in your Scavenger Hunt worksheet.

Using the Pythagorean Theorem, how can we find the distance between the two points below?



the distance
between the 2 points
will always be the
hypotenuse.





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

$$(\Delta x)^2 + (\Delta y)^2 = c^2$$

$$(x_2 - x_1)^2 + (y_2 - y_1)^2 = c^2$$

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

Distance Formula

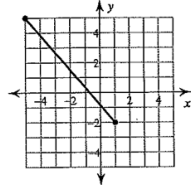
You don't need to memorize this because you know how to find distances just using the Pythagorean Theorem!

The Distance Formula

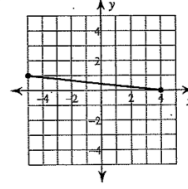
Date _____ Period _____

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

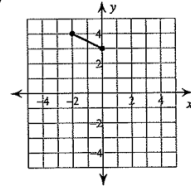
1)



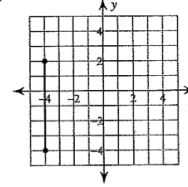
2)



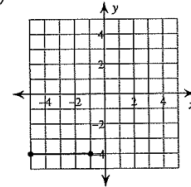
3)



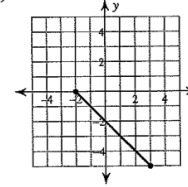
4)



5)



6)



7) $(-2, 3), (-7, -7)$

8) $(2, -9), (-1, 4)$

9) $(5, 9), (-7, -7)$

10) $(8, 5), (-1, 3)$

11) $(-10, -7), (-8, 1)$

12) $(-6, -10), (-2, -10)$

$$\#7 \begin{matrix} (-2, 3) \\ -5 \\ (-7, -7) \end{matrix} \rightarrow -10$$

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

$$(-5)^2 + (-10)^2 = c^2$$

$$25 + 100 = c^2$$

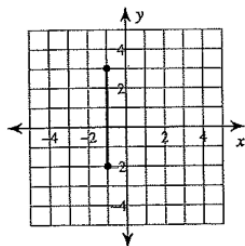
$$125 = c^2$$

$$\sqrt{125} = c$$

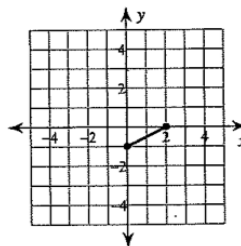
$$11.2 = c$$

Find the distance between each pair of points. Give exact distances, write answers in radical form.

13)

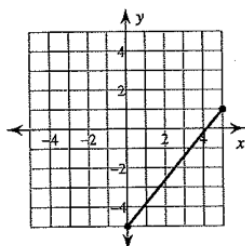


14)

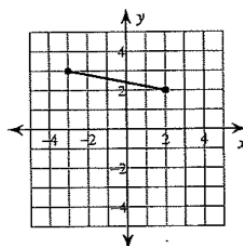


$\sqrt{\quad}$

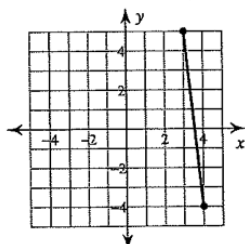
15)



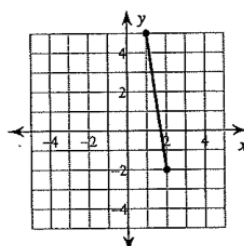
16)



17)



18)



19) $(0, -2), (-5, -1)$

20) $(6, 4), (-5, -1)$

21) $(3, 8), (9, 10)$

22) $(10, 1), (9, -4)$

Homework

Finish Classwork