Unit 4.5 Day 11: Distance & Perimeter of a Figure

Use the Pythagorean Theorem to Find Distance:

Find the distance between (-5, 6) and (3, -2)

x y x y

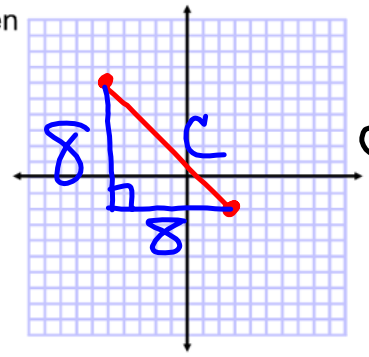
$a^2+b^2=c^2$

$8^2+8^2=c^2$

$64+64=c^2$

$\sqrt{128}=\sqrt{c^2}$

$11.31=c$

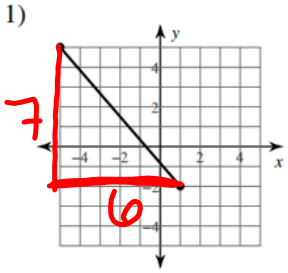


*cannot count diagonal distances.

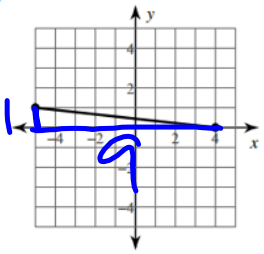
*can count vertical & horizontal distances.

You Try! Find the distance using the Pythagorean theorem.

1)

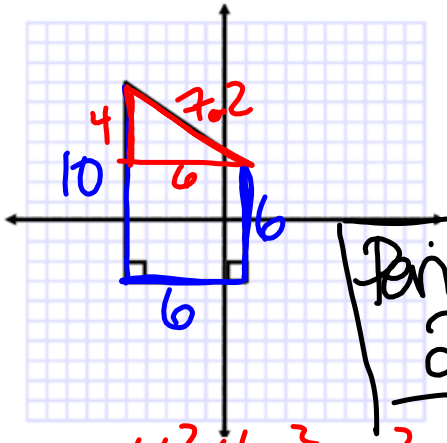


2)



Use the Pythagorean Theorem to Find Perimeter:

1.)



$4^2+6^2=c^2$

$16+36=c^2$

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

$7.2=c$

Perimeter: 29.2

2.)

$4^2+5^2=c^2$

$16+25=c^2$

$\sqrt{41}=\sqrt{c^2}$

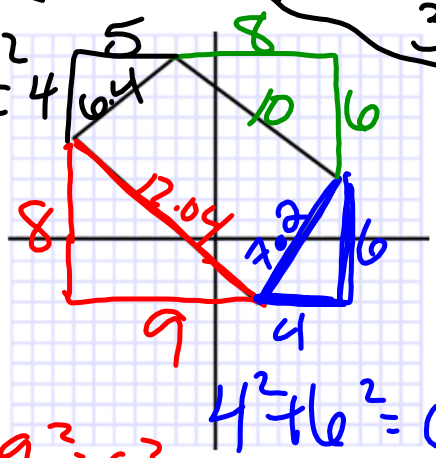
$6.4=c$

$8^2+9^2=c^2$

$64+81=c^2$

$\sqrt{145}=\sqrt{c^2}$

$12.04=c$



$4^2+6^2=c^2$

$16+36=c^2$

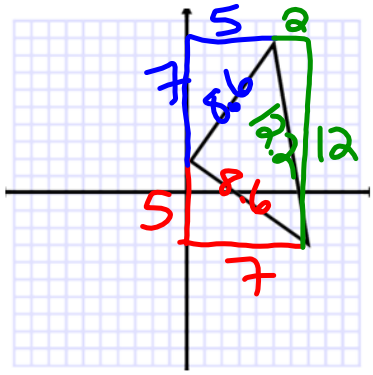
$\sqrt{52}=\sqrt{c^2}$

$7.2=c$

Perimeter: 35.7

Using the Pythagorean Theorem:

Determine if the triangle is a right triangle



$5^2+7^2=c^2$

$25+49=c^2$

$\sqrt{74}=\sqrt{c^2}$

$8.6=c$

$9^2+12^2=c^2$

$81+144=c^2$

$\sqrt{225}=\sqrt{c^2}$

$15=c$ yes

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

$8.6^2+8.6^2=12.2^2$

$148=148$ ✓

Final Exam Practice!

EOC Question 6:

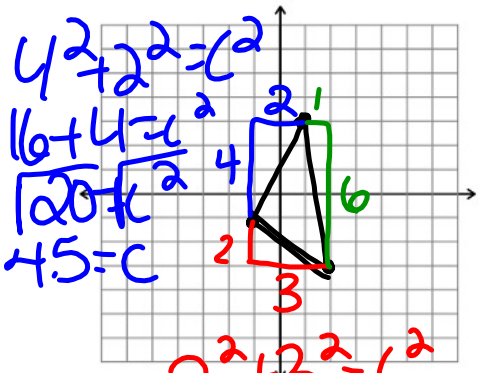
A triangle has vertices at (1, 3), (2, ⁻3), and (⁻1, ⁻1). What is the ***approximate*** perimeter of the triangle?

A 10

B 14

C 15

D 16



$4^2+2^2=c^2$

$16+4=c^2$

$\sqrt{20}=\sqrt{c^2}$

$4.5=c$

$1^2+6^2=c^2$

$1+36=c^2$

$\sqrt{37}=\sqrt{c^2}$

$6.1=c$

$2^2+3^2=c^2$

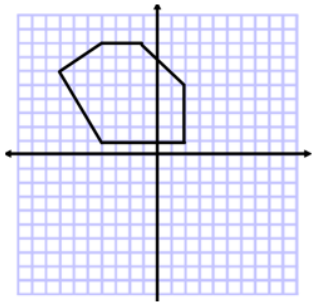
$4+9=c^2$

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

$3.6=c$

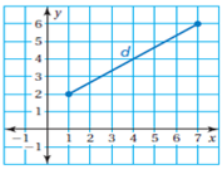
Closure Day 2

1.) Find the perimeter of the figure:

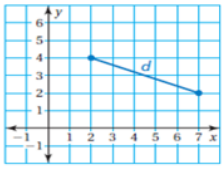


Find the distance *d*. Round your answer to the nearest tenth.

2.)

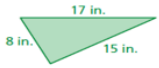


3.)



Tell whether the triangle with the given side lengths is a right triangle.

4.)



5.) 4.4 m, 4.8 m, 5 m

6.)