Winston 3/1/2018

Distance Formula & Pythagorean Theorem

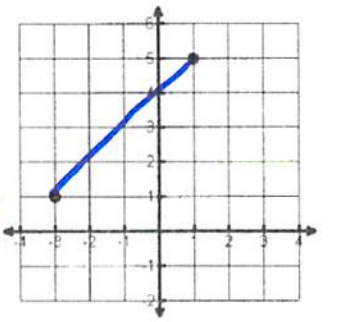
Find the distance between the two points using the distance formula. Round your solution to the nearest hundredths if necessary.

_____ 1. (-2, 5) and (1, 4)

distance Formula:

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

$4\sqrt{2}$ 2.



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

$x_1\ y_1\ x_2\ y_2$

$\sqrt{(1-(-3))^2+(5-1)^2}$

$\sqrt{(4)^2+(4)^2}$

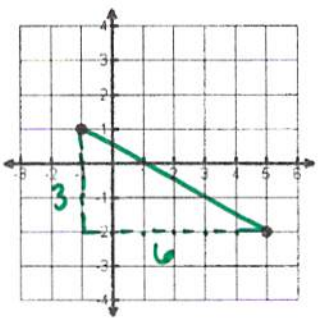
$\sqrt{16+16}$

$\sqrt{32} = 4\sqrt{2}$

Find the distance between the two points using the Pythagorean Theorem. Round your solution to the nearest hundredths if necessary.

_____ 3. (-3, 2) and (2, -2)

$3\sqrt{5}$ 4.



Pythagorean Theorem:

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

$3^2+6^2=c^2$

$9+36=c^2$

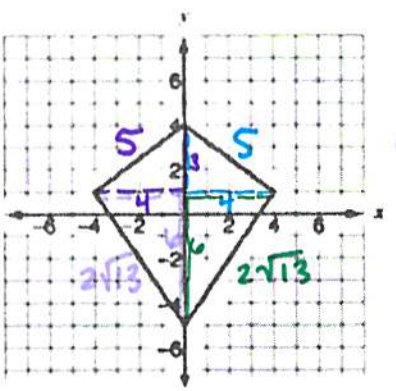
$\sqrt{45}=\sqrt{c^2}$

$c=3\sqrt{5}$

(add all sides)

Find the perimeter of each figure. You can use the distance formula or Pythagorean Theorem.

$10+4\sqrt{13}$ 5.



$3^2+4^2=c^2$

$9+16=c^2$

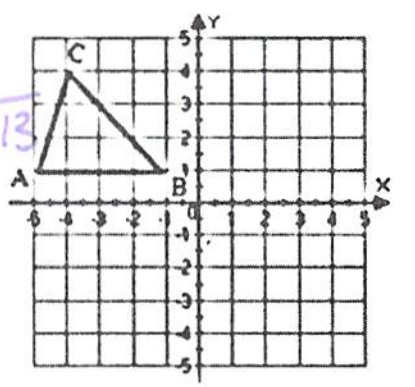
$\sqrt{25}=\sqrt{c^2}$

$c=5$

$5+5+2\sqrt{13}+2\sqrt{13}$

$10+4\sqrt{13}$

_____ 6.



$3^2+4^2=c^2$

$9+16=c^2$

$25=c^2$

$c=5$

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

$36+16=c^2$

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

$c=2\sqrt{13}$

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

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

$c=2\sqrt{13}$