CW

Name: _____

Plot the point and draw a triangle. Then, fill in all 6 trig ratios for the given angle.

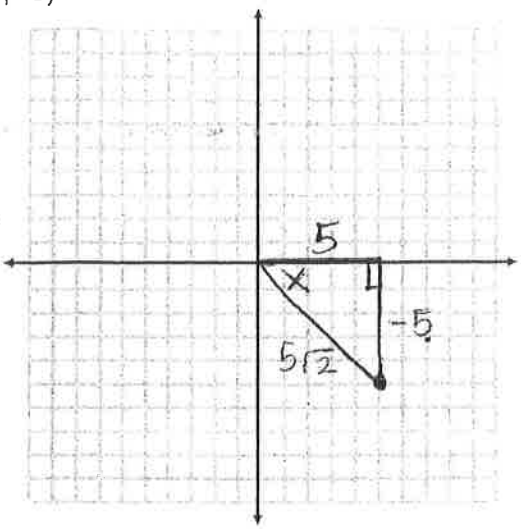
$c^2 = 6^2 + 8^2$

$c = \sqrt{36+64}$

$= \sqrt{100}$

$= 10$

1. (5, -5)



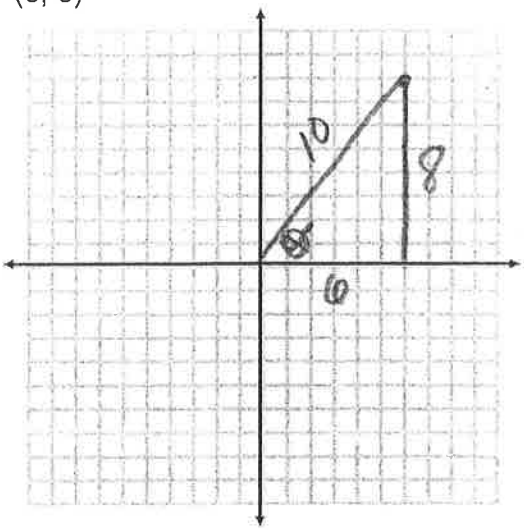
$\sqrt{50}$

$5\sqrt{2}$

$\sin\theta = \frac{-5}{5\sqrt{2}} = \frac{-1}{\sqrt{2}}$ $\cos\theta = \frac{5}{5\sqrt{2}} = \frac{\sqrt{2}}{2}$ $\tan\theta = \frac{-5}{5} = -1$

$\csc\theta = \frac{-2}{\sqrt{2}} = \sqrt{2}$ $\sec\theta = \sqrt{2}$ $\cot\theta = -1$

2. (6, 8)



$\sin\theta = 4/5$ $\cos\theta = 3/5$ $\tan\theta = 4/3$

$\csc\theta = 5/4$ $\sec\theta = 5/3$ $\cot\theta = 3/4$

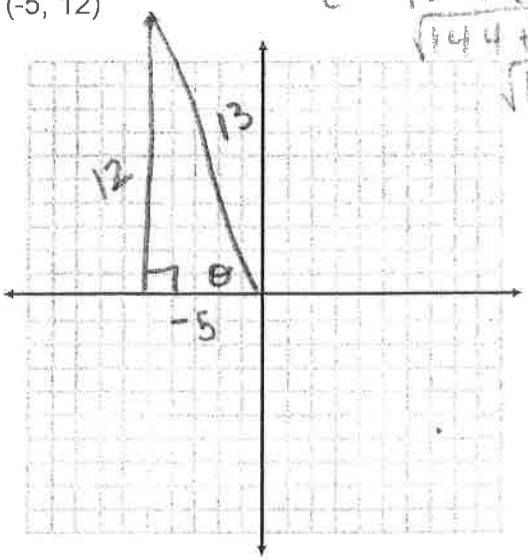
3. (-5, 12)

$c^2 = 12^2 + (-5)^2$

$\sqrt{144+25}$

$\sqrt{169}$

13



$\sin\theta = \frac{12}{13}$ $\cos\theta = \frac{-5}{13}$ $\tan\theta = \frac{12}{-5}$

$\csc\theta = \frac{13}{12}$ $\sec\theta = \frac{13}{-5}$ $\cot\theta = \frac{-5}{12}$

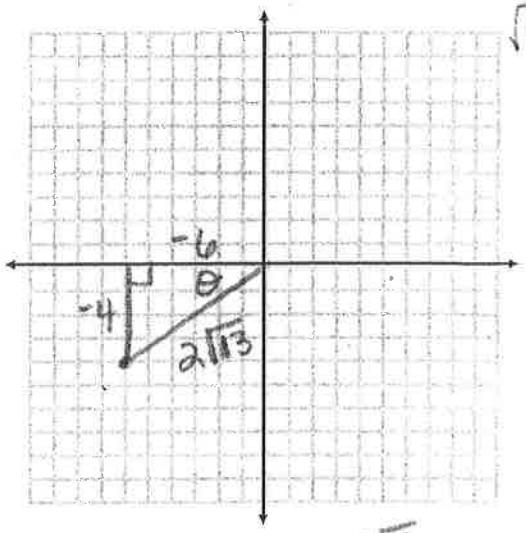
4. (-6, -4)

$c^2 = (-4)^2 + (-6)^2$

$\sqrt{16+36}$

$\sqrt{52}$

$2\sqrt{13}$



$\sin\theta = \frac{-4}{2\sqrt{13}} = \frac{-2\sqrt{13}}{13}$ $\cos\theta = \frac{-6}{2\sqrt{13}} = \frac{-3\sqrt{13}}{13}$ $\tan\theta = \frac{-4}{-6} = \frac{2}{3}$

$\csc\theta = \frac{2\sqrt{13}}{-4} = \frac{-\sqrt{13}}{2}$ $\sec\theta = \frac{2\sqrt{13}}{-6} = -\frac{\sqrt{13}}{3}$ $\cot\theta = \frac{3}{2}$