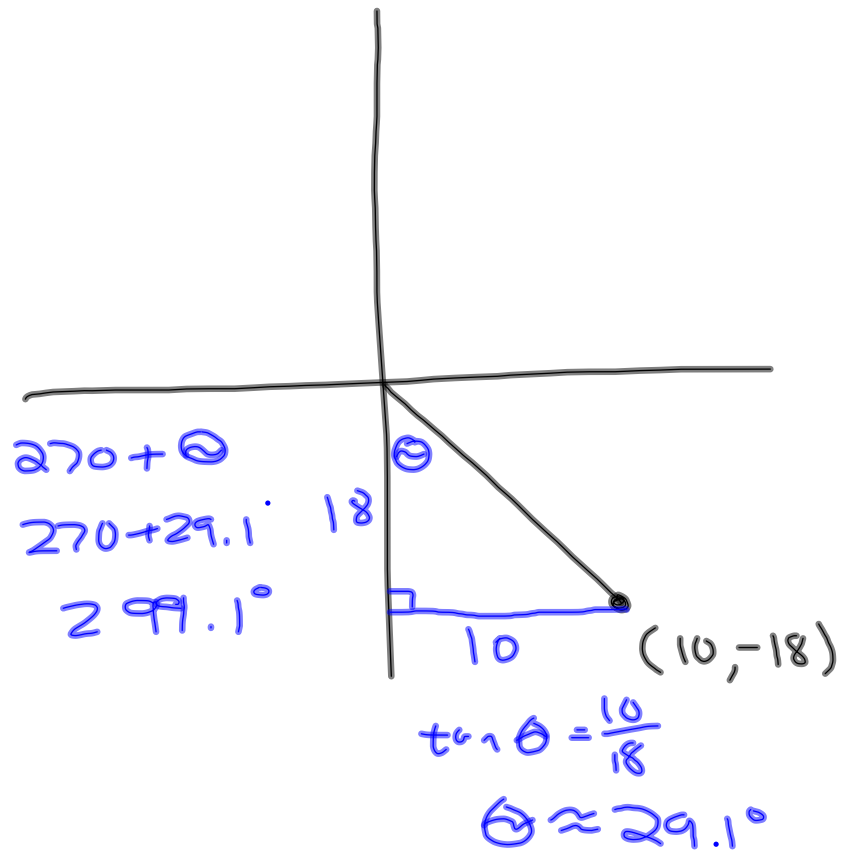
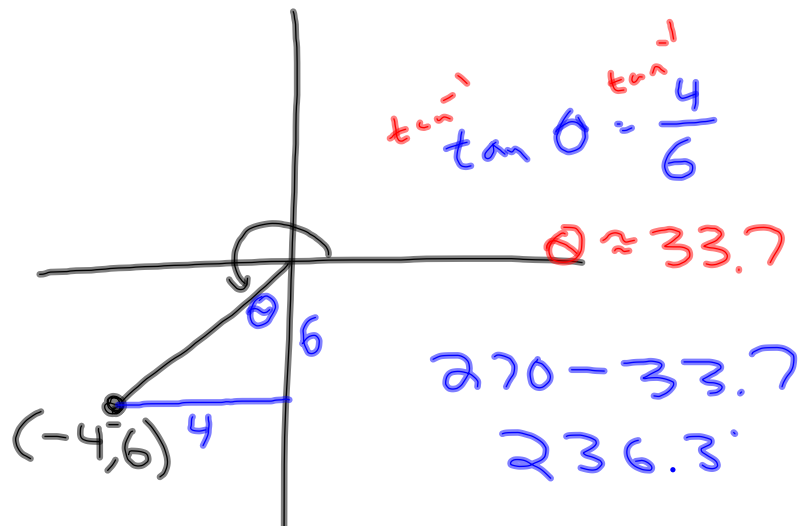


4-16-14  
3<sup>rd</sup> Trig

Find the angle opening



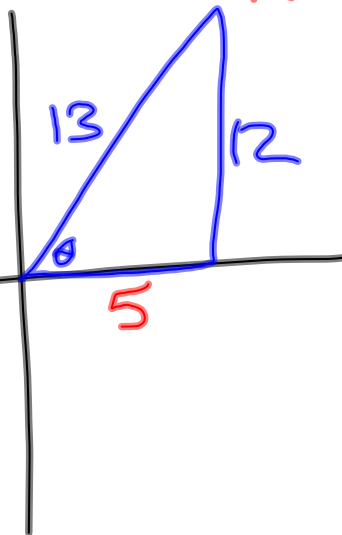
If  $\theta$  is in 1<sup>st</sup> quadrant

and  $\sin \theta = \frac{12}{13}$ , find

$$\cot \theta = \frac{5}{12}$$

$$\sec \theta = \frac{13}{5}$$

$$\csc \theta = \frac{13}{12}$$



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 12^2 + b^2 &= 13^2 \\ b &= 5 \end{aligned}$$

Change  $\frac{3\pi}{5}$  to degrees.

$$\frac{3\pi}{5} \cdot \frac{180^\circ}{\pi} = 108^\circ$$

Give a coterminal angle to

$$\frac{3\pi}{7} \pm 2\pi$$

$$\frac{3\pi}{7} \pm \frac{14\pi}{7} = \frac{17\pi}{7} \text{ or } \frac{-11\pi}{7}$$

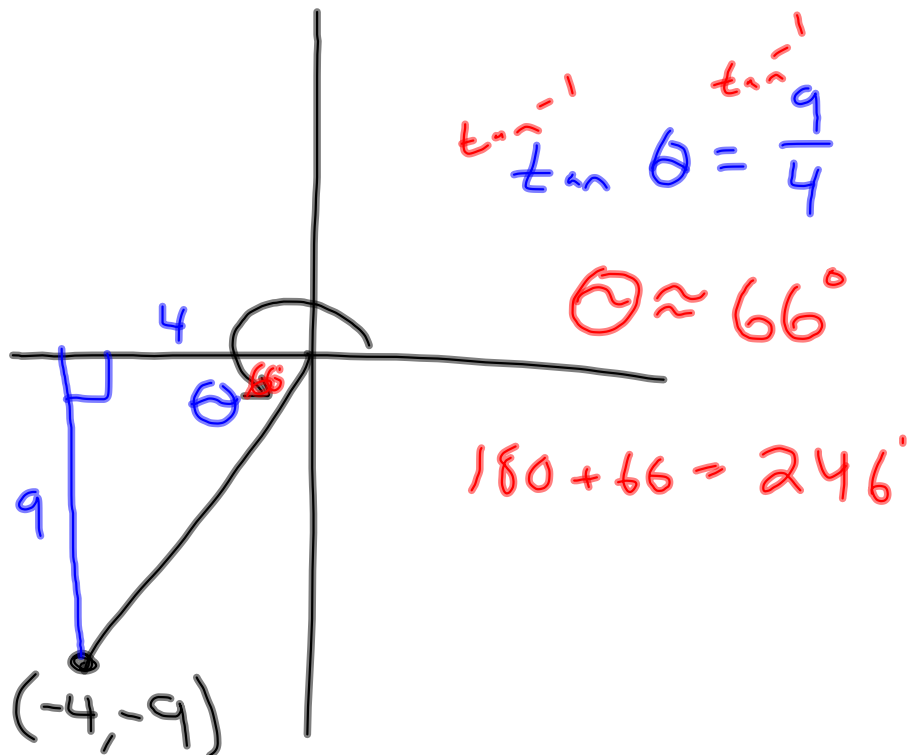
4-16-14  
4<sup>th</sup> Trig

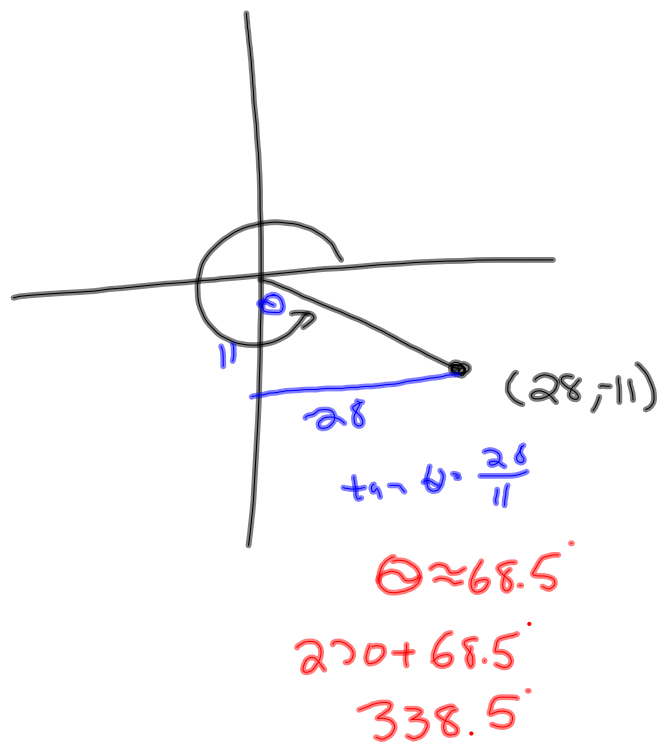
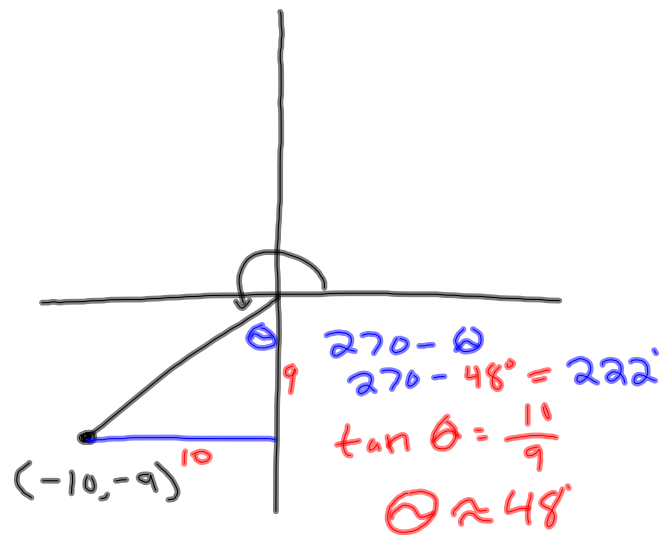
① Change  $50^\circ$  to radians.

$$\cancel{50}^\circ \cdot \frac{\pi}{\cancel{180}} = \frac{5\pi}{18}$$

② Change  $\frac{3\pi}{10}$  to degrees.

$$\frac{\cancel{3\pi}}{\cancel{10}} \cdot \frac{\cancel{180}^\circ}{\cancel{\pi}} = 54^\circ$$



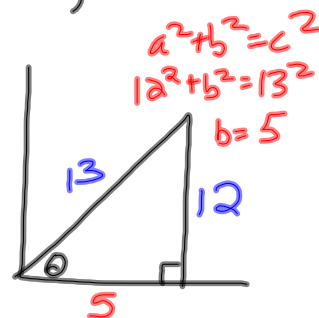


If  $\theta$  is in the 1<sup>st</sup> quadrant  
and  $\sin \theta = \frac{12}{13}$ , find

$$\sec \theta = \frac{13}{5}$$

$$\csc \theta = \frac{13}{12}$$

$$\cot \theta = \frac{5}{12}$$



If  $\theta$  is in 1<sup>st</sup> quadrant  
and  $\tan \theta = \frac{9}{40}$ , find

$$\cos \theta = \frac{40}{41}$$

$$\csc \theta = \frac{41}{9}$$

$$\cot \theta = \frac{40}{9}$$

$$\sec \theta = \frac{41}{40}$$

