

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 2.2**

Using trigonometric ratios and solving simple trigonometric equations.

1. The point  $P(-5, -12)$  lies on the terminal arm of an angle  $\theta$ , in standard position. Determine the exact trigonometric ratios for  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$ .
2. Suppose  $\theta$  is an angle in standard position with terminal arm in quadrant III, and  $\tan \theta = \frac{1}{5}$ . What are the exact values of  $\sin \theta$  and  $\cos \theta$ ?
3. Determine the values of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  when the terminal arm of quadrantal angle  $\theta$  coincides with the negative  $x$  - axis.
4. Given  $\sin \theta = -0.8090$  where  $0^\circ \leq \theta < 360^\circ$ , determine the measure of  $\theta$  to the nearest tenth of a degree.