

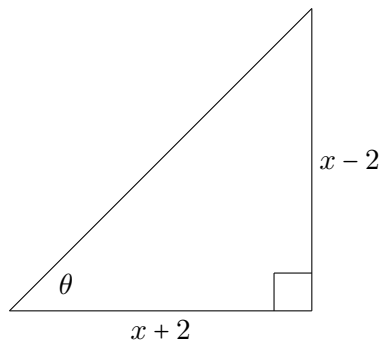
Complete as many of the following problems as you can with your table. You do not have to go in order. If **your entire table** finishes early, and your answers have been checked, you may leave early.

1. If  $\sin(\theta) = \frac{3}{5}$  find the following:

(a)  $\tan(\theta)$  if  $\frac{\pi}{2} < \theta < \pi$

(b)  $\cos(\theta)$  if  $0 < \theta < \frac{\pi}{2}$

2. Find the standard six trigonometric functions for  $\theta$ .



3. Assume that  $\alpha$  is an angle in standard position whose terminal side contains the point  $(3, -4)$ . Find the three standard trigonometric values for  $\alpha$ .

4. Determine the values of the other 4 standard trigonometric functions of  $\beta$  where  $\sin \beta = -\frac{8}{17}$  and  $\cos \beta = \frac{15}{17}$ .

Key:

1. (a)  $-\frac{3}{4}$

(b)  $\frac{4}{5}$

2.  $\sin \theta = \frac{x-2}{\sqrt{2x^2+8}}$

$\cos \theta = \frac{x+2}{\sqrt{2x^2+8}}$

$\tan \theta = \frac{x-2}{x+2}$

$\sec \theta = \frac{\sqrt{2x^2+8}}{x-2}$

$\csc \theta = \frac{\sqrt{2x^2+8}}{x+2}$

$\cot \theta = \frac{x+2}{x-2}$

3.  $\sin \alpha = -\frac{4}{5}$

$\cos \alpha = \frac{3}{5}$

$\tan \alpha = -\frac{4}{3}$

4.  $\tan \beta = -\frac{8}{15}$

$\csc \beta = -\frac{17}{8}$

$\sec \beta = \frac{17}{15}$

$\cot \beta = -\frac{15}{8}$