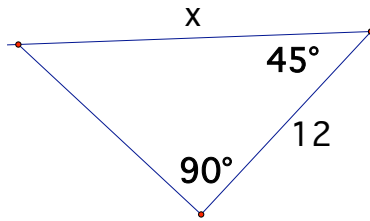


# Quiz 5

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.

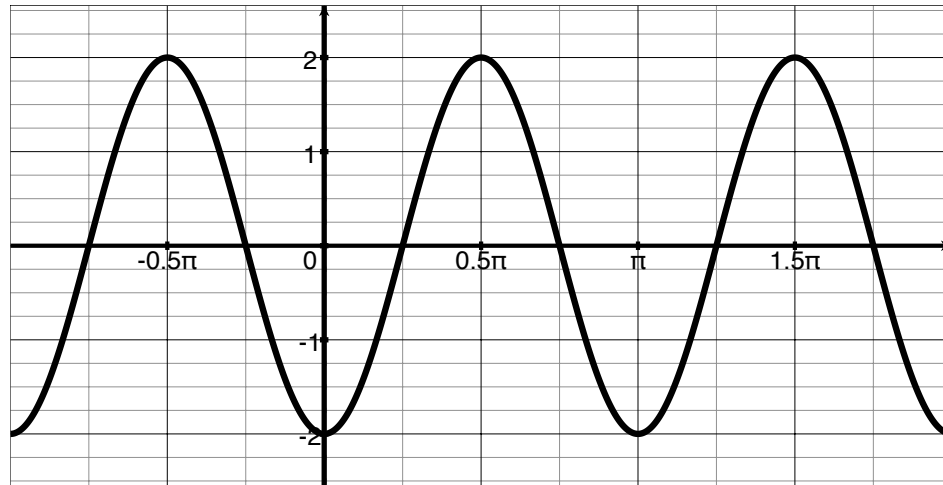
1. [3] (§5.2 #69) Given  $\frac{\pi}{2} \leq \theta \leq \frac{3\pi}{2}$  and  $\sin \theta = \frac{-1}{5}$ . Find  $\tan \theta$ .

2. [2] (§6.2 #11) Find the length of the side marked  $x$  in the triangle below.



3. [3] (§5.3 #41) Write an equation that represents the curve below in the form:

$$y = a \cos k(x - b)$$



4. [2] True or false:  $\sin^{-1}(\sin(\theta)) = \theta$  for all angles  $\theta$ . If it is true, explain why, if it is false, find an example when the equality fails.