

# Quiz 6

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

1. [2] (WebHW15 #4 & §7.2 #4) TRUE/FALSE: Circle T in each of the following cases if the statement is true for all  $\theta$  and  $\phi$  in the domain. Otherwise, circle F.

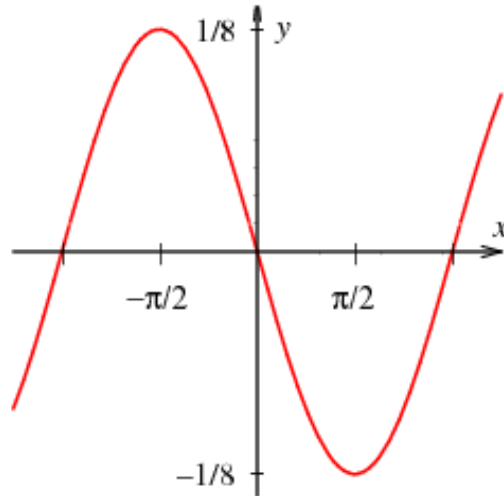
T   F    $\frac{\sec \theta - \cos \theta}{\tan \theta} = \csc \theta$

T   F    $\sin(\phi + \theta) = \cos \phi \sin \theta + \sin \phi \cos \theta$

2. [3] (§7.3 #2) Given  $\frac{\pi}{2} \leq \theta \leq \pi$  and  $\tan \theta = \frac{-4}{3}$ . Find the exact value of  $\sin 2\theta$ .

3. [3] (WebHW14a #6) Write an equation that represents the curve below in the form:

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



4. [2] (pg571 #70) Evaluate  $\sin(\cos^{-1}(\frac{1}{4}))$  exactly: