

*This quiz is worth 10 points and you have 10 minutes to complete it. Show all work and circle your final answers.*

**Calculators are NOT allowed today.**

**1.** (4 pts) Give a formal definition of  $\sin \theta$ , for any angle  $\theta$ . Your definition should include the words “unit circle,” “standard position,” “terminal,” and “coordinate.”

**2.** (6 pts) Fill in each blank with one letter. (Not all letters will be used.)

\_\_\_\_\_ =  $\sin \frac{\pi}{3}$

\_\_\_\_\_ =  $\cos \frac{\pi}{3}$

\_\_\_\_\_ =  $\sin(-x)$

\_\_\_\_\_ =  $\cos(-x)$

\_\_\_\_\_ =  $\sin^2 x$

\_\_\_\_\_ =  $\sec^2 x$

- A. 1
- B.  $\sqrt{3}$
- C.  $-\sqrt{3}$
- D.  $\frac{1}{2}$
- E.  $\frac{\sqrt{3}}{2}$
- F.  $-\frac{\sqrt{3}}{2}$
- G.  $-\cos x$
- H.  $-\sin x$
- I.  $\sin x$
- J.  $\cos x$
- K.  $\sin(x^2)$
- L.  $(\sin x)^2$
- M.  $1 + \cot^2 x$
- N.  $1 - \tan^2 x$
- O.  $\tan^2 x + 1$