

EXAM 4 (TAKE-HOME) * ANSWER KEY *

1. $\tan \theta = \frac{x}{4} \rightarrow x = 4 \tan \theta$
 $\cos \theta = \frac{4}{y} \rightarrow y = \frac{4}{\cos \theta} = 4 \sec \theta$

2.
 $72.3 \tan \frac{\pi}{6} = \frac{72.3}{\sqrt{3}}$
 $\frac{72.3}{\cos \frac{\pi}{6}} = \frac{72.3}{\frac{\sqrt{3}}{2}} = \frac{144.6}{\sqrt{3}}$

6. AMP: 3
 PER: 4π
 H.S.: 0
 $y = 3 \sin \frac{1}{2} x$

3. (a) $800^\circ - 2(360^\circ) = 80^\circ$
 (b) $\frac{23\pi}{7} = 3\pi + \frac{2\pi}{7}$

7. (a) $-\frac{\pi}{6}$
 (b) $\frac{\pi}{3}$

4. $a = \sin \theta$
 $b = \tan \theta$
 $c = \sec \theta$
 $d = \cos \theta$

5. AMPLITUDE: 2
 PERIOD: $\frac{2\pi}{\pi} = 2$

