HA2T 8.1 Day 2 Worksheet

Name: Key

Find exact values.

1. $\cos 60° = \frac{1}{2}$
   $\sin 60° = \frac{\sqrt{3}}{2}$
   $\tan 60° = \sqrt{3}$
   $\sec 60° = 2$
   $\csc 60° = \frac{2}{\sqrt{3}}$ or $\frac{2\sqrt{3}}{3}$
   $\cot 60° = \frac{1}{\sqrt{3}}$ or $\frac{\sqrt{3}}{3}$

2. $\cos 135° = \frac{-\sqrt{2}}{2}$
   $\sin 135° = \frac{\sqrt{2}}{2}$
   $\tan 135° = -1$
   $\sec 135° = -\sqrt{2}$
   $\csc 135° = \sqrt{2}$
   $\cot 135° = -1$

3. $\cos -315° = \frac{\sqrt{2}}{2}$
   $\sin -315° = \frac{\sqrt{2}}{2}$
   $\tan -315° = 1$
   $\sec -315° = \sqrt{2}$
   $\csc -315° = \sqrt{2}$
   $\cot -315° = 1$

4. $\cos 330° = \frac{\sqrt{3}}{2}$
   $\sin 330° = \frac{-1}{2}$
   $\tan 330° = \frac{-1}{\sqrt{3}}$ or $\frac{-\sqrt{3}}{3}$
   $\sec 330° = \frac{2}{\sqrt{3}}$ or $\frac{2\sqrt{3}}{3}$
   $\csc 330° = -2$
   $\cot 330° = -\sqrt{3}$

5. $\cos 180° = -1$
   $\sin 180° = 0$
   $\tan 180° = 0$
   $\sec 180° = -1$
   $\csc 180° =$ undefined
   $\cot 180° =$ undefined

6. $\cos -270° = 0$
   $\sin -270° = 1$
   $\tan -270° =$ undefined
   $\sec -270° =$ undefined
   $\csc -270° = 1$
   $\cot -270° = 0$

7. $\cos\frac{5\pi}{4}$ $-\frac{\sqrt{2}}{2}$

$\sin\frac{5\pi}{4}$ $-\frac{\sqrt{2}}{2}$

$\tan\frac{5\pi}{4}$ 1

$\sec\frac{5\pi}{4}$ $-\sqrt{2}$

$\csc\frac{5\pi}{4}$ $-\sqrt{2}$

$\cot\frac{5\pi}{4}$ 1

8. $\cos\frac{2\pi}{3}$ $-\frac{1}{2}$

$\sin\frac{2\pi}{3}$ $\frac{\sqrt{3}}{2}$

$\tan\frac{2\pi}{3}$ $-\sqrt{3}$

$\sec\frac{2\pi}{3}$ -2

$\csc\frac{2\pi}{3}$ $\frac{2\sqrt{3}}{3}$

$\cot\frac{2\pi}{3}$ $-\frac{\sqrt{3}}{3}$

9. $\cos\frac{5\pi}{6}$ $-\frac{\sqrt{3}}{2}$

$\sin\frac{5\pi}{6}$ $\frac{1}{2}$

$\tan\frac{5\pi}{6}$ $-\frac{\sqrt{3}}{3}$

$\sec\frac{5\pi}{6}$ $-\frac{2\sqrt{3}}{3}$

$\csc\frac{5\pi}{6}$ 2

$\cot\frac{5\pi}{6}$ $-\sqrt{3}$

10. $\cos-\frac{7\pi}{4}$ $\frac{\sqrt{2}}{2}$

$\sin-\frac{7\pi}{4}$ $\frac{\sqrt{2}}{2}$

$\tan-\frac{7\pi}{4}$ 1

$\sec-\frac{7\pi}{4}$ $\sqrt{2}$

$\csc-\frac{7\pi}{4}$ $\sqrt{2}$

$\cot-\frac{7\pi}{4}$ 1