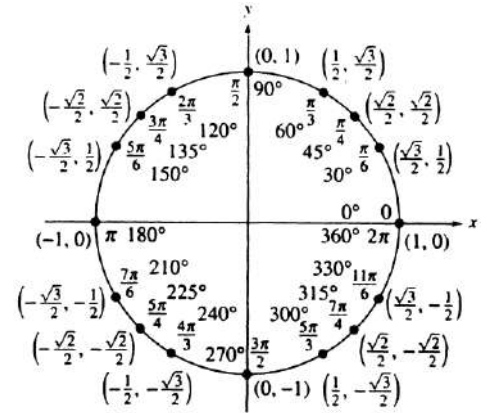


Find the **exact value** of each of the trigonometric functions, if defined. If not defined, write *undefined*. Use the unit circle.



1. $\tan \frac{3}{4}\pi =$ _____



3. $\sec 240^\circ =$ _____

4. $\sec \left(-\frac{3}{4}\pi\right) =$ _____

5. Find the reference angle $\vartheta = 88^\circ$

Ans = _____

6. Find the reference angle of $\vartheta = \frac{7\pi}{4}$

Ans = _____

7. $\tan \vartheta = \frac{6}{12}$ where $\sin \vartheta < 0$

Find the exact values of the five remaining trigonometric functions of ϑ .

8. $\sec \vartheta = 2\sqrt{3}$ where the $\tan \vartheta < 0$

Find the exact values of the five remaining trigonometric functions of ϑ .

9. Sketch 1 period of $y = \cos x$