Algebra 2 - Raad Name:_____

Exact Values (Radians)

Date:_____ Hour:____

Draw the reference triangle, list the quadrant, and label all sides of the triangle. Then, give all exact values of the given angle.

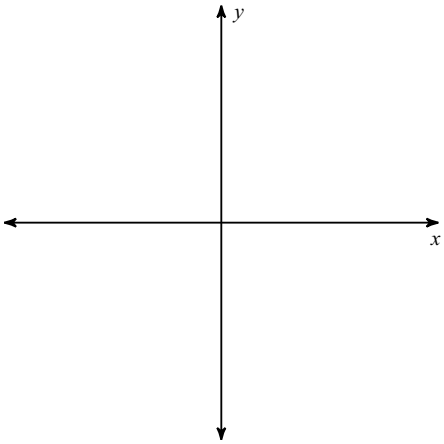
1) $\frac{7\pi}{6}$

Degrees:
Quadrant:
RA:

$\sin \frac{7\pi}{6} =$

$\cos \frac{7\pi}{6} =$

$\tan \frac{7\pi}{6} =$



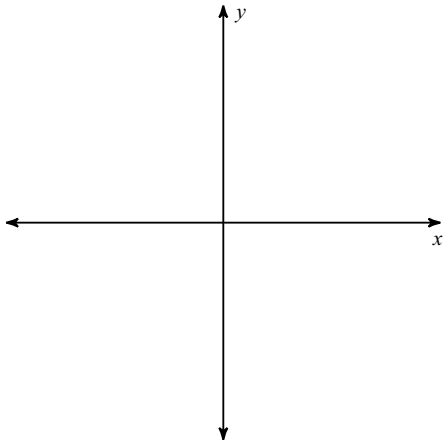
2) $\frac{3\pi}{4}$

Degrees:
Quadrant:
RA:

$\sin \frac{3\pi}{4} =$

$\cos \frac{3\pi}{4} =$

$\tan \frac{3\pi}{4} =$



3) $\frac{7\pi}{3}$

Degrees:

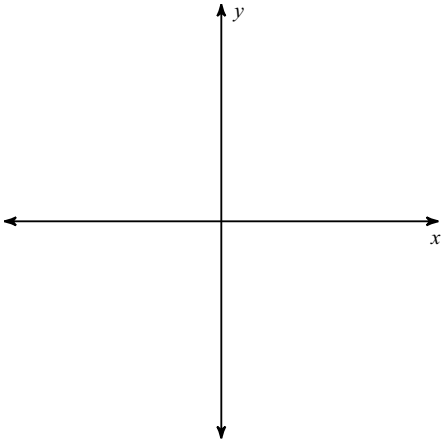
Quadrant:

RA:

$\sin \frac{7\pi}{3} =$

$\cos \frac{7\pi}{3} =$

$\tan \frac{7\pi}{3} =$



4) $\frac{7\pi}{4}$

Degrees:

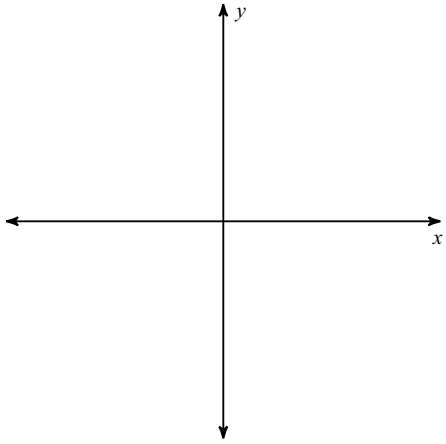
Quadrant:

RA:

$\sin \frac{7\pi}{4} =$

$\cos \frac{7\pi}{4} =$

$\tan \frac{7\pi}{4} =$



Answers to Exact Values (Radians)

1) Degrees: 210°
Quadrant: III
RA: 30°

$\sin \frac{7\pi}{6} = -\frac{1}{2}$

$\cos \frac{7\pi}{6} = -\frac{\sqrt{3}}{2}$

$\tan \frac{7\pi}{6} = \frac{\sqrt{3}}{3}$

2) Degrees: 135°
Quadrant: II
RA: 45°

$\sin \frac{3\pi}{4} = \frac{\sqrt{2}}{2}$

$\cos \frac{3\pi}{4} = -\frac{\sqrt{2}}{2}$

$\tan \frac{3\pi}{4} = -1$

3) Degrees: 420°
Quadrant: IV
RA: 60°

$\sin \frac{7\pi}{3} = \frac{\sqrt{3}}{2}$

$\cos \frac{7\pi}{3} = \frac{1}{2}$

$\tan \frac{7\pi}{3} = \sqrt{3}$

4) Degrees: 315°
Quadrant: IV
RA: 45°

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

$\cos \frac{7\pi}{4} = \frac{\sqrt{2}}{2}$

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