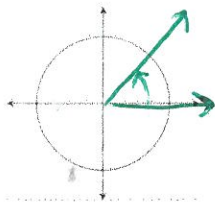
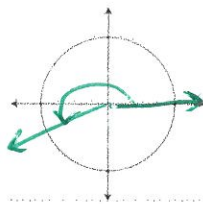


1. Draw each angle in standard form.

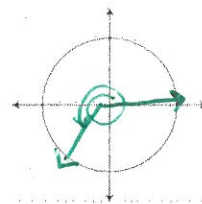
a. $\frac{3\pi}{10}$



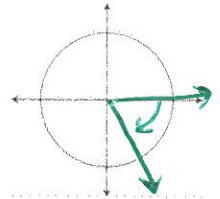
b. 195°



c. $\frac{10\pi}{3}$



d. -65°



2. For the angles above, give a positive and a negative coterminal angle (stay in the same unit)

a. $\frac{3\pi}{10}$ $-\frac{17\pi}{10}$
 $\frac{23\pi}{10}$

b. 195° -165°
 555°

c. $\frac{10\pi}{3}$ $-\frac{2\pi}{3}$ $\frac{4\pi}{3}$ $\frac{16\pi}{3}$
 295° -425°

3. What is the reference angle for each angle (stay in the same unit)

a. $\frac{3\pi}{10}$ $\frac{3\pi}{10}$

b. 195° 15°

c. $\frac{10\pi}{3}$ $\frac{4\pi}{3}$
d. -65° 65°

4. Convert each angle to the other unit of measure.

a. $\frac{3\pi}{10}$ $\frac{180}{\pi} = \frac{x}{\frac{3}{10}\pi}$ 54°

b. 195° $\frac{180}{\pi} = \frac{195}{x}$ $\frac{13\pi}{12}$

c. $\frac{10\pi}{3}$ $\frac{180}{\pi} = \frac{x}{\frac{10}{3}\pi}$ 600°

d. -65° $\frac{180}{\pi} = \frac{-65}{x}$
 $180x = -65\pi$
 $x = \frac{-65\pi}{180} = \frac{-13}{36}\pi$

5. Assume all angles are between 0 and 2π . Evaluate in degrees and radians.
(Hint: Remember to look in all four quadrants.)

a. $\sin^{-1}\left(\frac{-\sqrt{3}}{2}\right)$

b. $\tan^{-1}(-1)$

c. $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$

d. $\cos^{-1}\left(-\frac{1}{2}\right)$

d: $240^\circ / 300^\circ$

d: $135^\circ / 315^\circ$

d: $30^\circ / 330^\circ$

d: $120^\circ / 240^\circ$

r: $\frac{4\pi}{3} / \frac{5\pi}{3}$

r: $\frac{3\pi}{4} / \frac{7\pi}{4}$

r: $\frac{\pi}{6} / \frac{11\pi}{6}$

r: $\frac{2\pi}{3} / \frac{4\pi}{3}$

6. a. $\sin \frac{4\pi}{3}$ $-\frac{\sqrt{3}}{2}$

b. $\cos 90^\circ$ 0

c. $\tan \frac{2\pi}{3}$ $\frac{\frac{\sqrt{3}}{2}}{\frac{-1}{2}} = -\sqrt{3}$