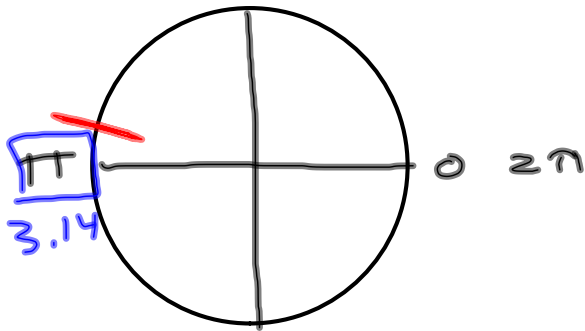


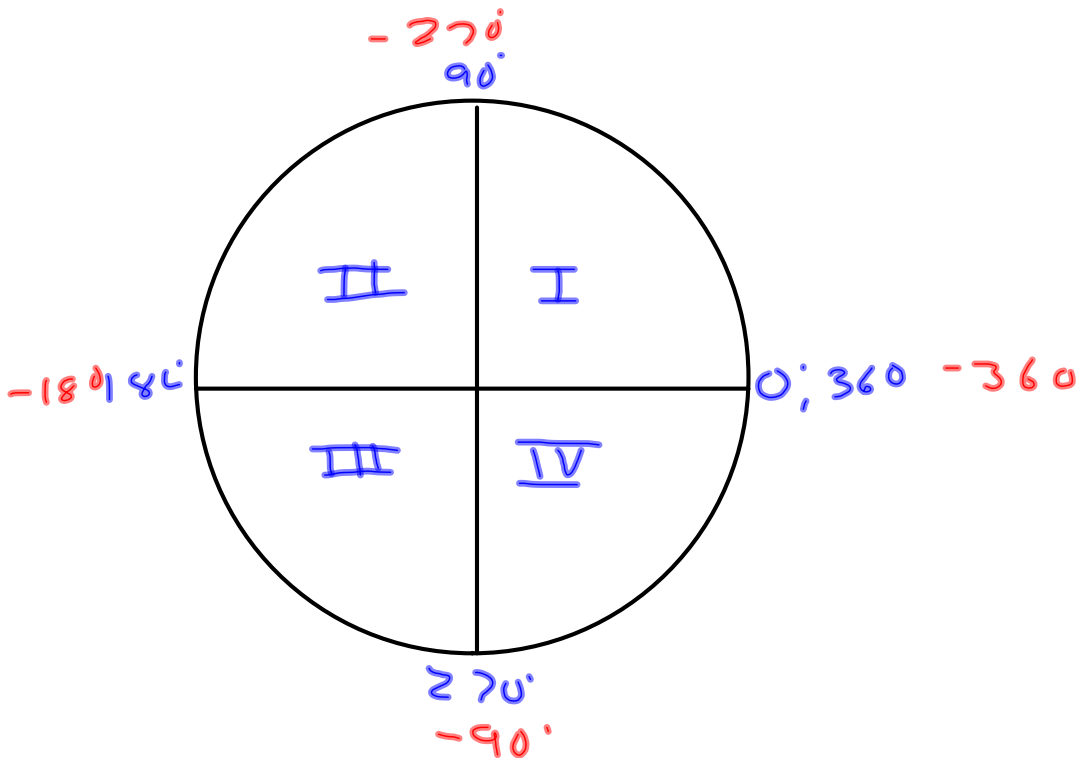
4-1-14
3rd Trig

9-1

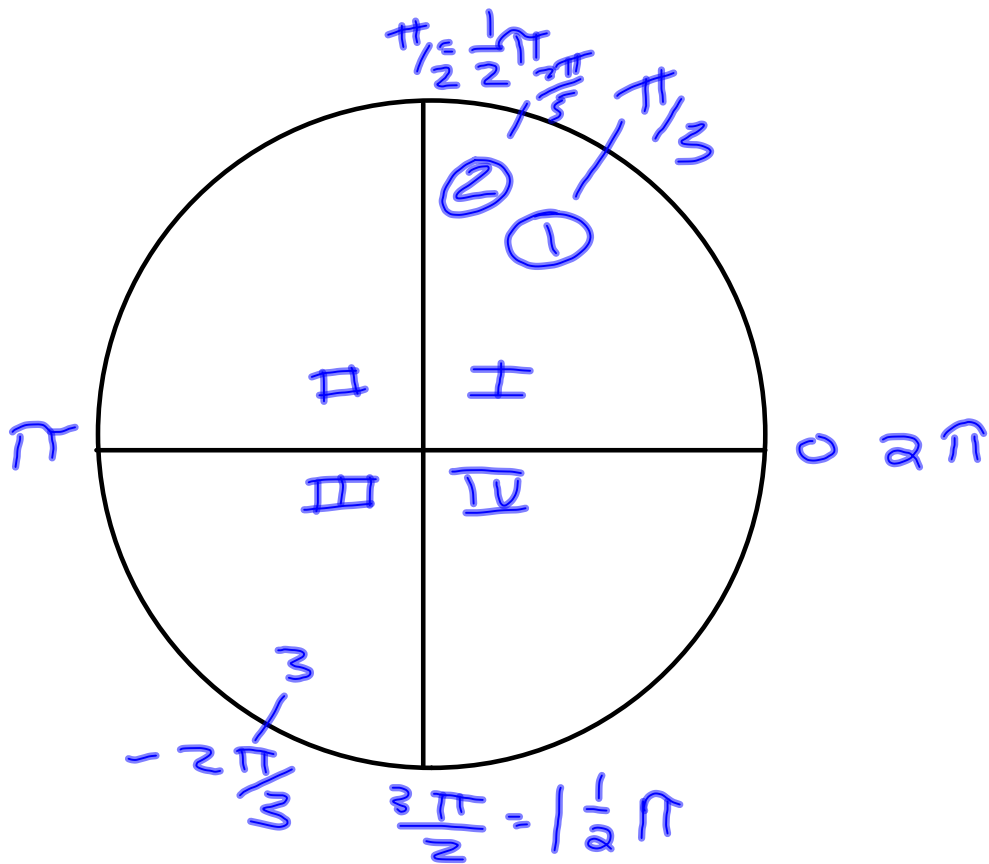
(19) Change 3 radians to degrees.



$$3 \cdot \frac{180^\circ}{\pi} = \frac{540}{\pi} \approx 172^\circ$$



Radians



In which quadrant are these

- ① $\frac{\pi}{3} = \frac{1}{3} \pi$ I
- ② $\frac{2\pi}{5} = \frac{2}{5} \pi$ I
- ③ $-\frac{2\pi}{3} = -\frac{2}{3} \pi$ III
- ④ $\frac{7\pi}{4}$ IV
- ⑤ $-\frac{3\pi}{4}$ III
- ⑥ $\frac{9\pi}{4} = (2\frac{1}{4}\pi)$ I

Coterminal Angles

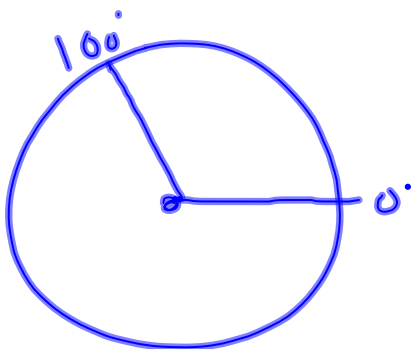
Line is pointing in same direction

Will differ by a multiple of 360° .

Give me a coterminal angle to

① 20° -340° 380°

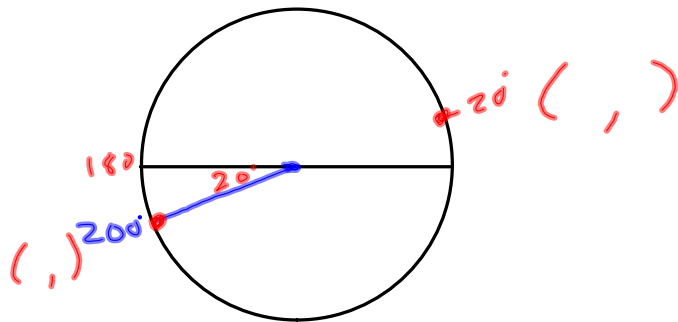
② 100° -260° 460°



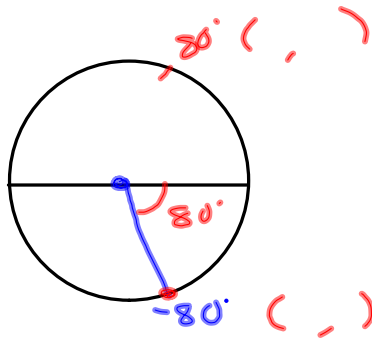
③ 600° Subtract 360° twice
 -120°

Reference Angles
always give angle
between given angle
and x-axis.

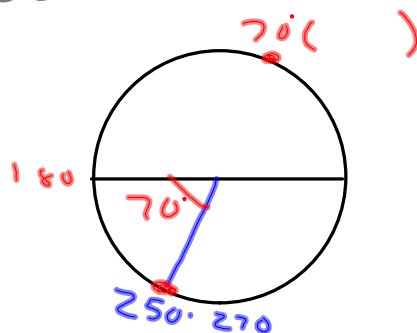
① What is the reference angle to 200° ? 20°



② What is reference angle of -80° ?



③ Reference angle to 250°

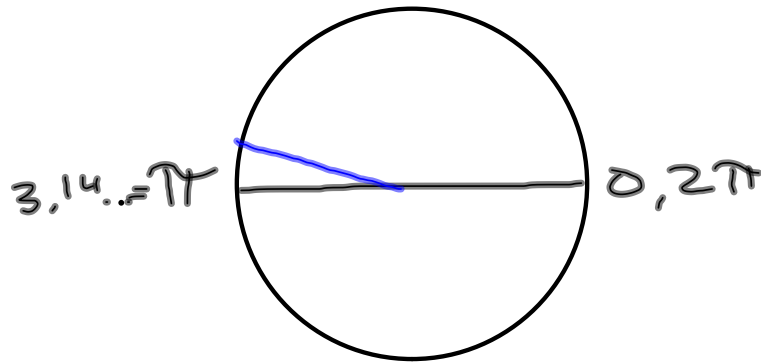


4-1-14

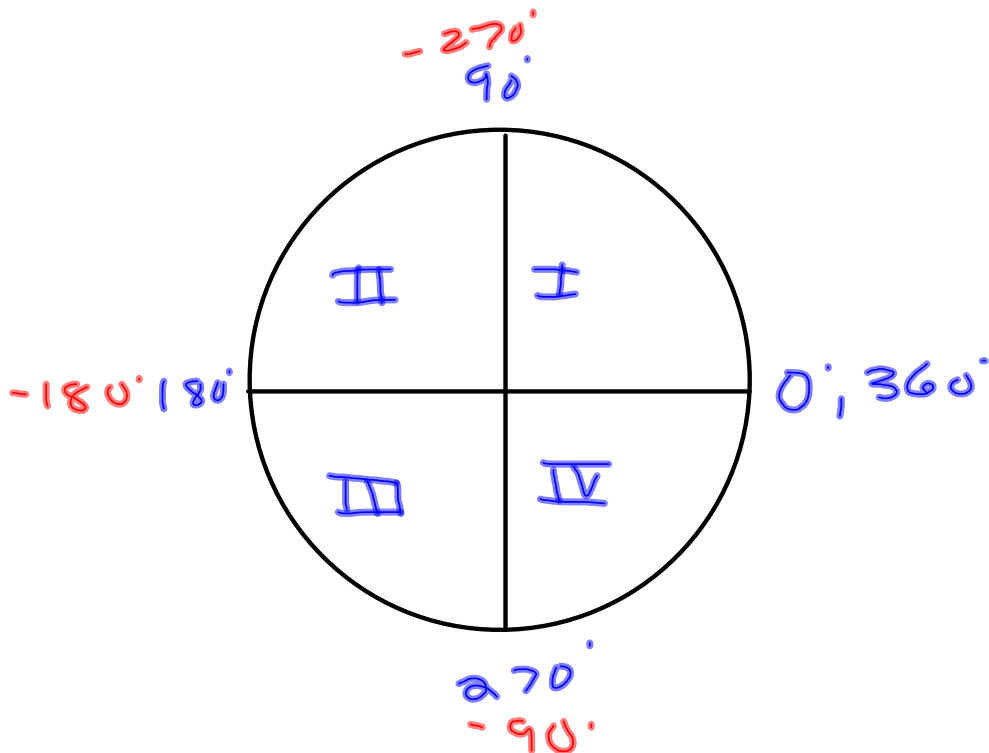
4th Tris

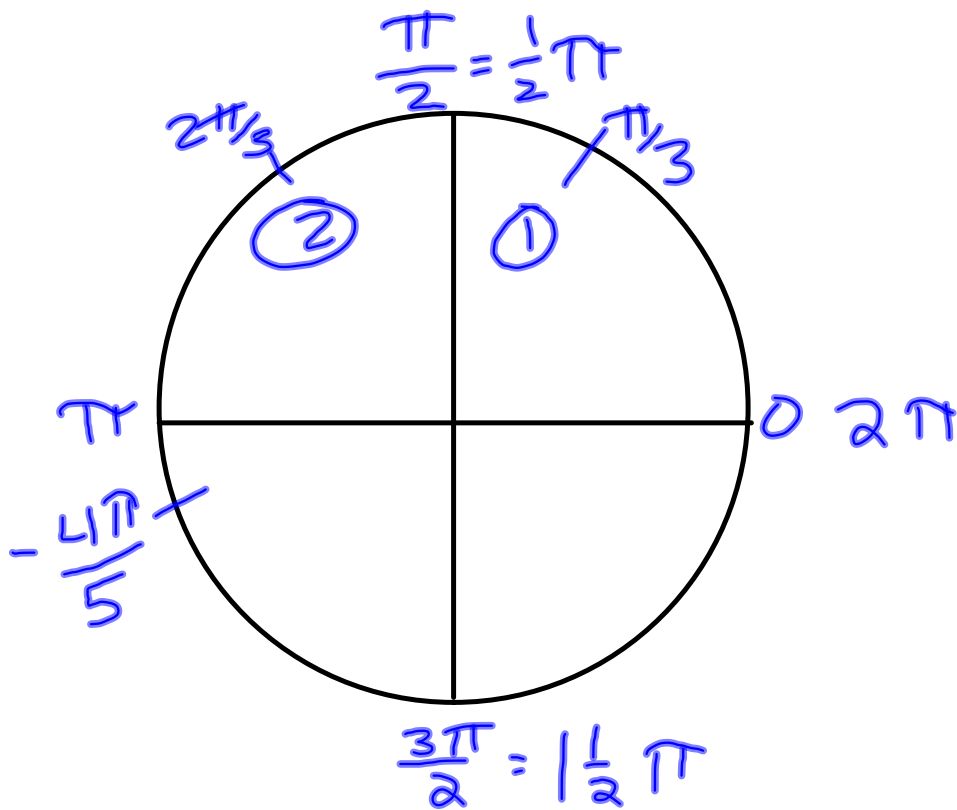
9-1

(19) What is 3 radians in degrees?



$$3 \cdot \frac{180^\circ}{\pi} = \frac{540}{\pi} \approx 172^\circ$$





In which quadrant is each of these

① $\frac{\pi}{3}$ I

② $\frac{2\pi}{3}$ II

③ $-\frac{4\pi}{5}$ III

④ $\frac{7\pi}{3}$ $2\frac{1}{3}\pi$ I

Coterminal Angles

Angles pointing in
same direction

Differ by a multiple
of 360°

Give angle that is
coterminal to.

$$\textcircled{1} \quad 40^\circ \quad 400^\circ \text{ or } -320^\circ$$

$$\textcircled{2} \quad 70^\circ \quad \begin{array}{l} 1060^\circ \\ 340^\circ \end{array} \text{ or } -20^\circ$$

$$\textcircled{3} \quad \pi \quad 3\pi \quad -\pi$$

$$\textcircled{4} \quad \frac{\pi}{4} + 2\pi = \frac{9\pi}{4} \quad \frac{-7\pi}{4}$$

$\frac{8}{4}$

$$\textcircled{5} \quad \frac{2\pi}{3} + 2\pi = \frac{8\pi}{3} \quad \frac{-4\pi}{3}$$

$\frac{6}{3}$

$$\textcircled{6} \quad \frac{\pi}{9} + 2\pi = \frac{19\pi}{9} \quad \frac{-17\pi}{9}$$

$-\frac{18}{9}$