

4-2-14
3rd Trig

Coterminal Angles

Give coterminal angle for

① 20° 380° -340°

② $\frac{\pi}{3} + \frac{6\pi}{3} = \frac{7\pi}{3}$ $\frac{-5\pi}{3}$
 $+2\pi$ -2π

③ $\frac{3\pi}{4} + \frac{8\pi}{4} = \frac{11\pi}{4}$ $\frac{-5\pi}{4}$

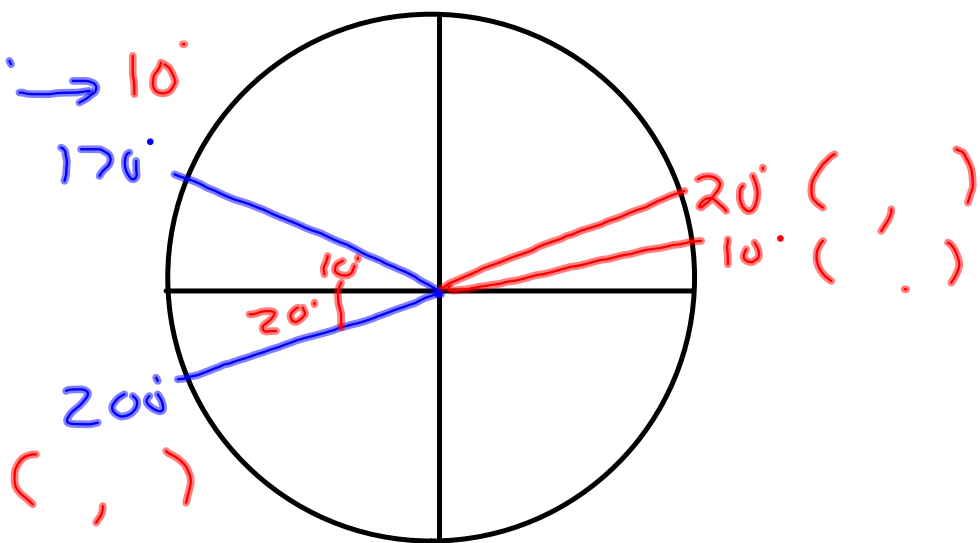
④ $\frac{5\pi}{6} + \frac{12\pi}{6} = \frac{17\pi}{6}$ $\frac{-7\pi}{6}$

Reference Angles

Get back to x-axis

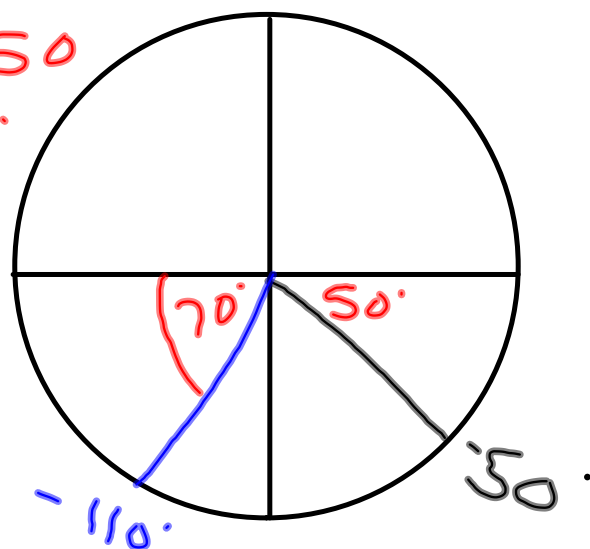
$$200^\circ \rightarrow 20^\circ$$

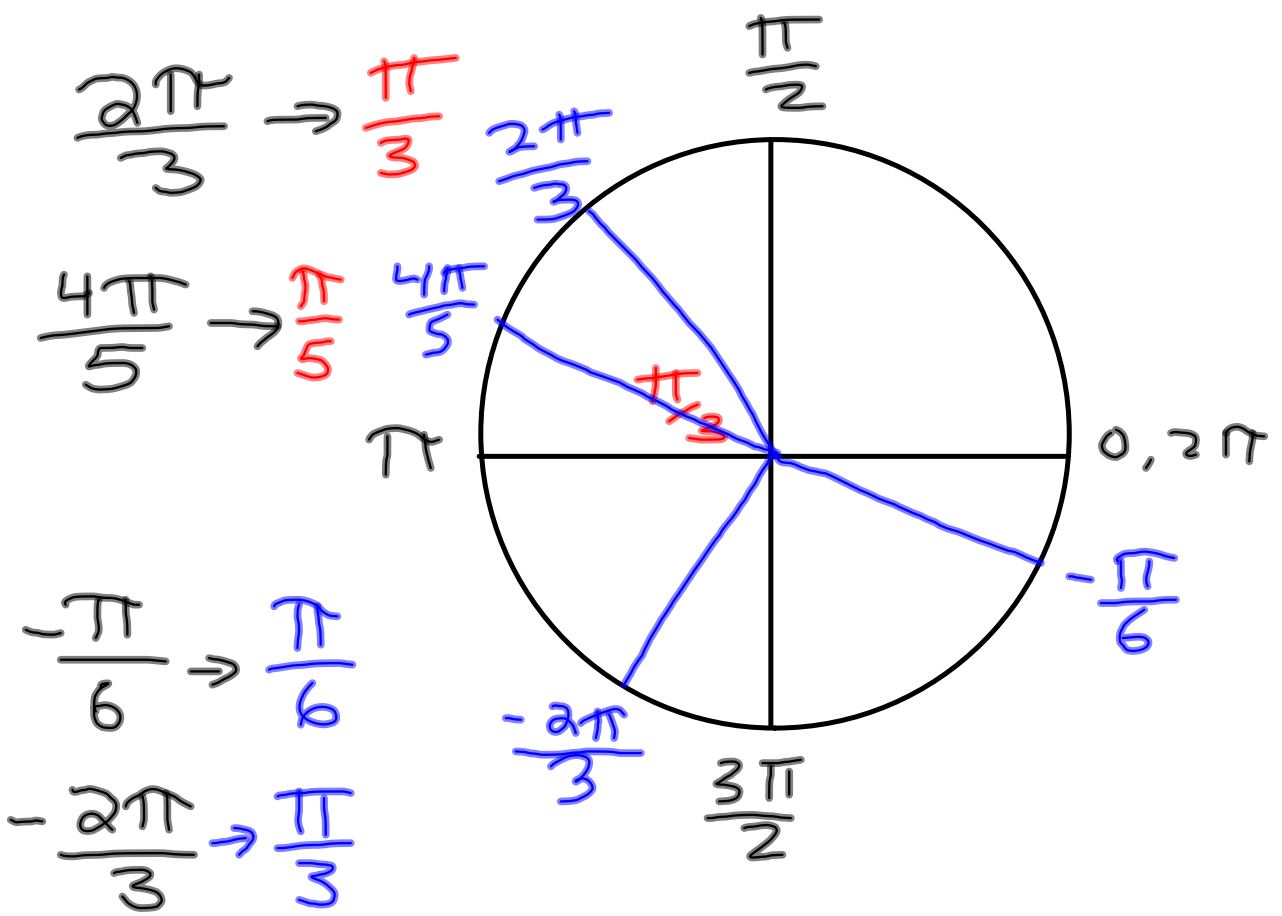
$$170^\circ \rightarrow 10^\circ$$



$$-50^\circ \rightarrow 50^\circ$$

$$-110^\circ \rightarrow 70^\circ$$





4-2-14

4th Trig

Coterminal Angles

Angles point in same
direction

$$\textcircled{1} \quad 30^\circ \pm 360^\circ \rightarrow 390^\circ \quad -330^\circ$$

$$\textcircled{2} \quad -100^\circ \pm 360^\circ \quad 260^\circ \quad -460^\circ$$

$$\textcircled{3} \quad \frac{\pi}{3} \pm 2\pi \quad \frac{7\pi}{3} \quad -\frac{5\pi}{3}$$

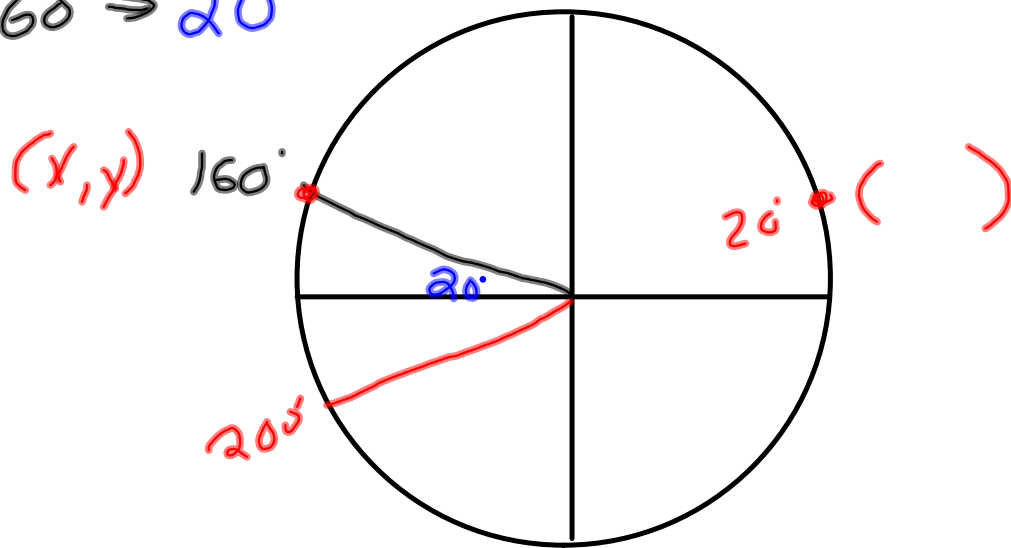
$$\frac{\pi}{3} + \frac{6\pi}{3} \quad \frac{\pi}{3} - \frac{6\pi}{3}$$

$$\textcircled{4} \quad \frac{2\pi}{5} \pm \frac{10\pi}{5} \quad \frac{12\pi}{5} \quad -\frac{8\pi}{5}$$

Reference Angle

Get back to x-axis

$$160^\circ \Rightarrow 20^\circ$$



$$-100^\circ \Rightarrow 80^\circ$$

$$-40^\circ \Rightarrow 40^\circ$$

$$70^\circ \Rightarrow 70^\circ$$

