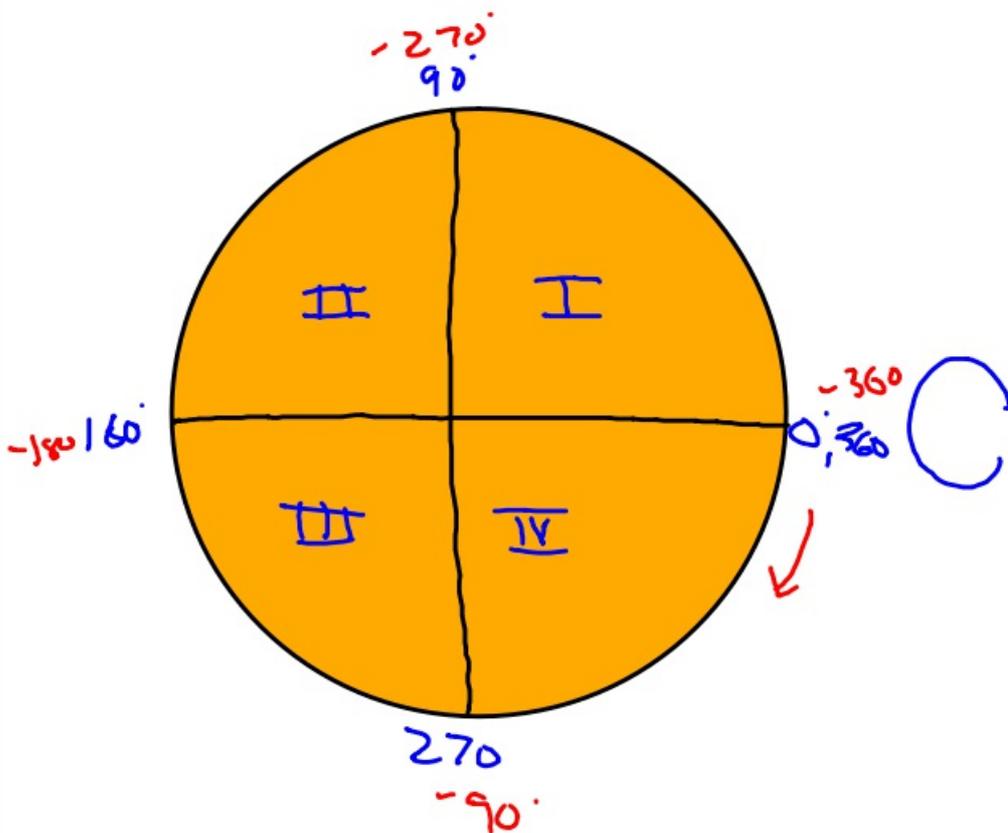
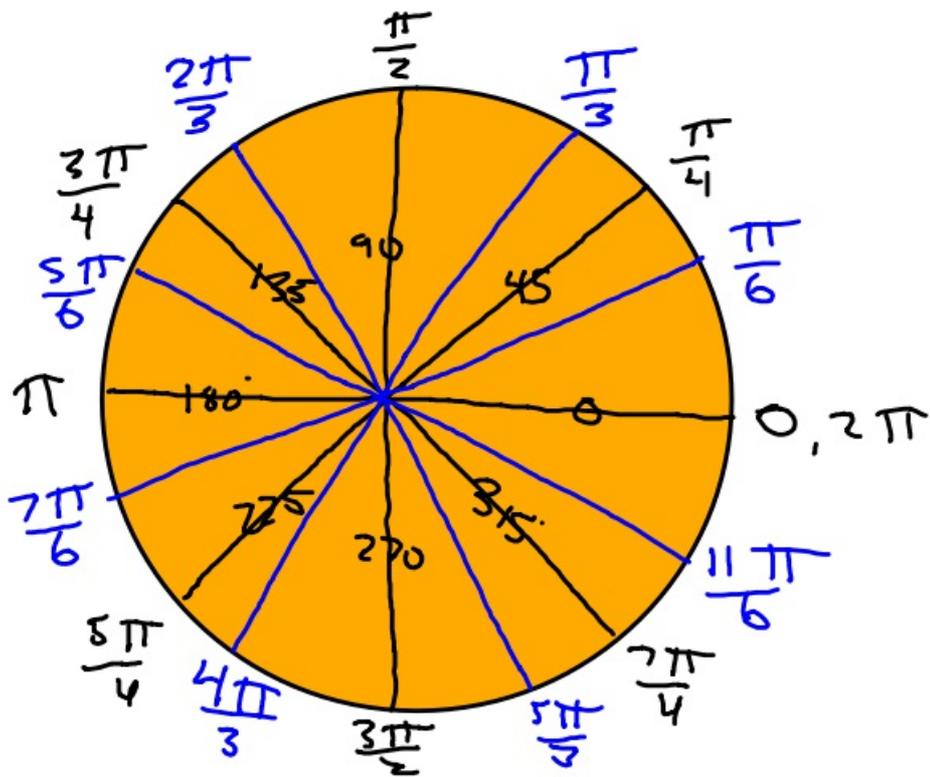


2-15-18 1<sup>st</sup> Trig



In which quadrant are

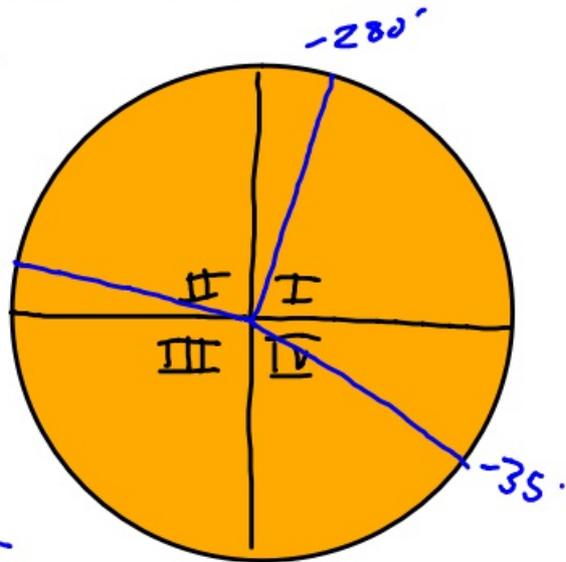
①  $230^\circ \rightarrow$  III

②  $-190^\circ \rightarrow$  II  
-190

③  $-35^\circ \rightarrow$  IV

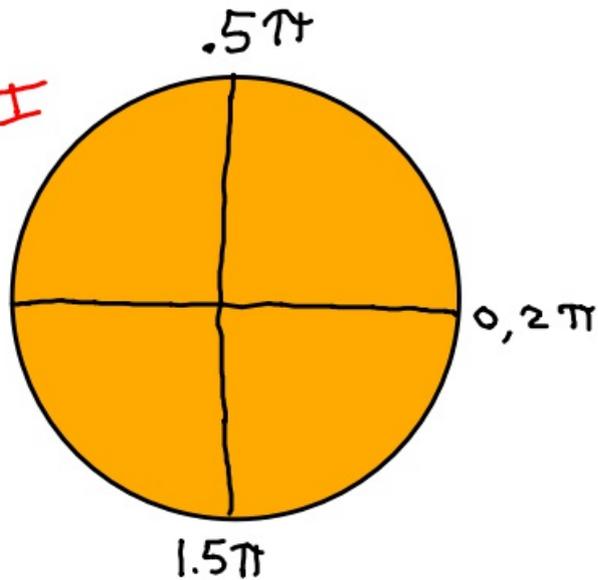
④  $-280^\circ \rightarrow$  I

⑤  $-400^\circ \rightarrow$  IV



⑥  $\frac{2\pi}{5} \rightarrow .40\pi$  I

⑦  $\frac{7\pi}{5} \rightarrow 1.40\pi$  III

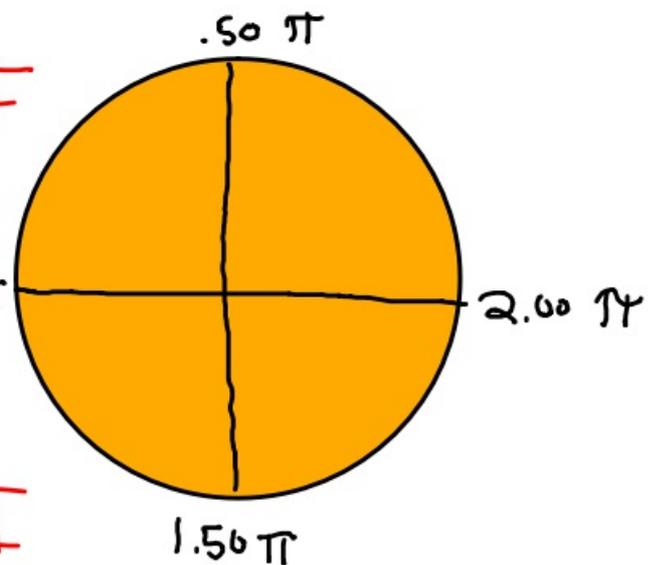


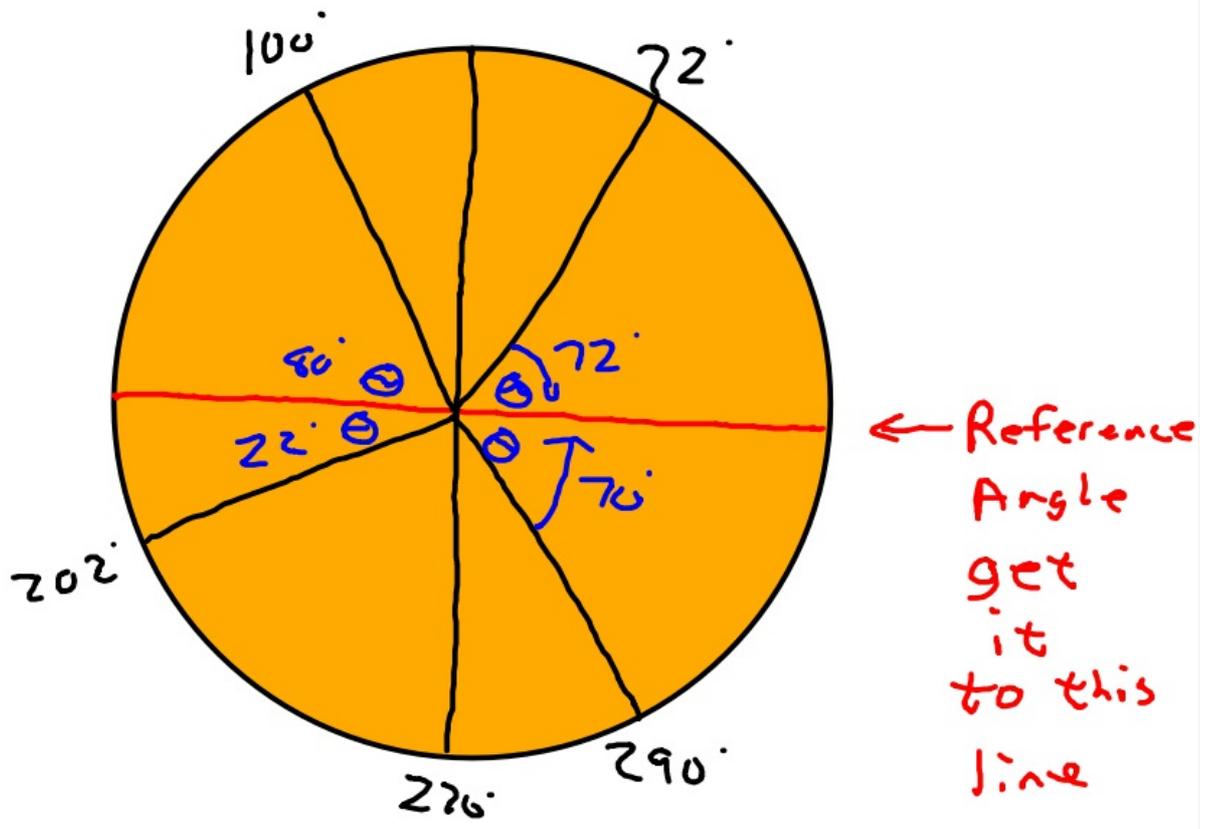
⑧  $\frac{2\pi}{3} (.66\pi)$  II

⑨  $\frac{7\pi}{6} (1.16\pi)$  III

⑩  $\frac{\pi}{10} (.10\pi)$  I

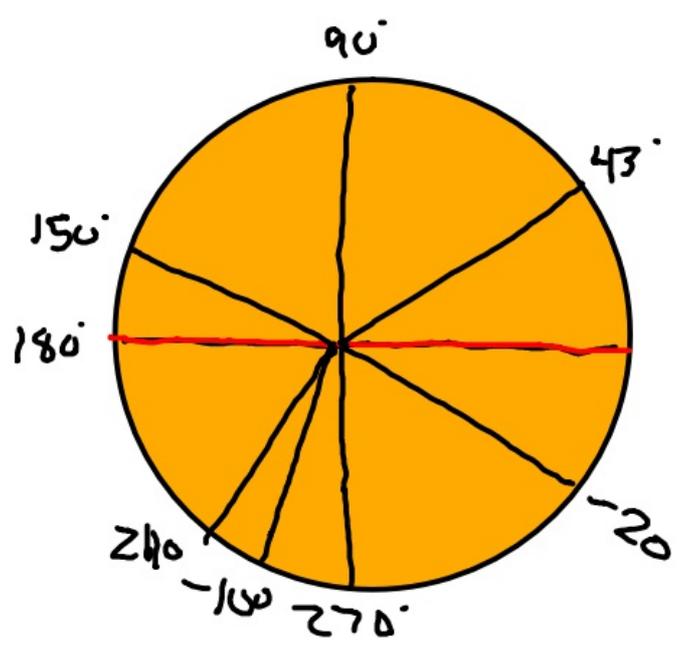
⑪  $-\frac{2\pi}{3} (-.66\pi)$  III

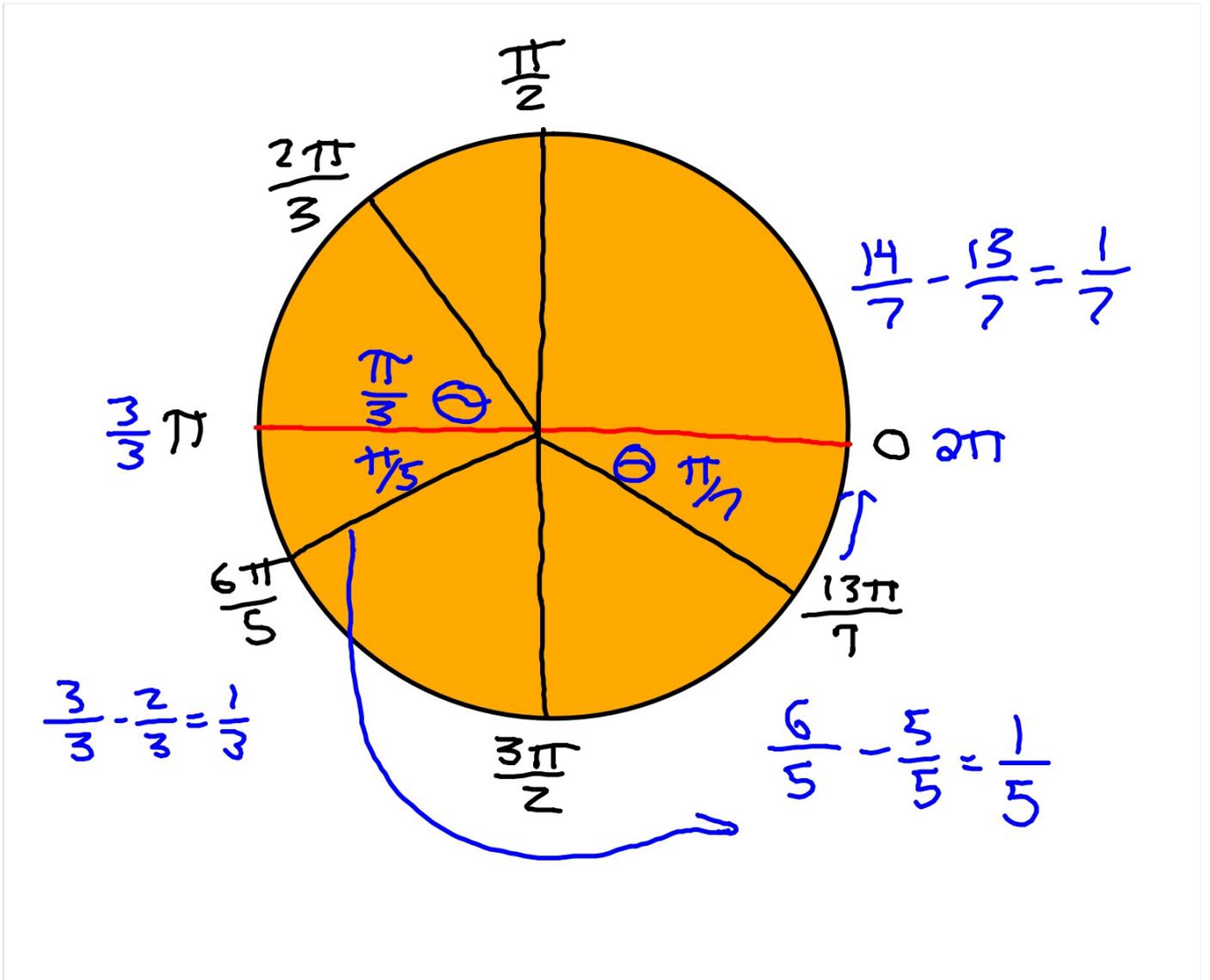




Give the reference angle to

- ⑫  $150^\circ$   $30^\circ$
- ⑬  $43^\circ$   $43^\circ$
- ⑭  $-20^\circ$   $20^\circ$
- ⑮  $-100^\circ$   $80^\circ$
- ⑯  $240^\circ$   $60^\circ$





2-15-18 3<sup>rd</sup> Trig

①  $220^\circ$  III

②  $400^\circ$  I

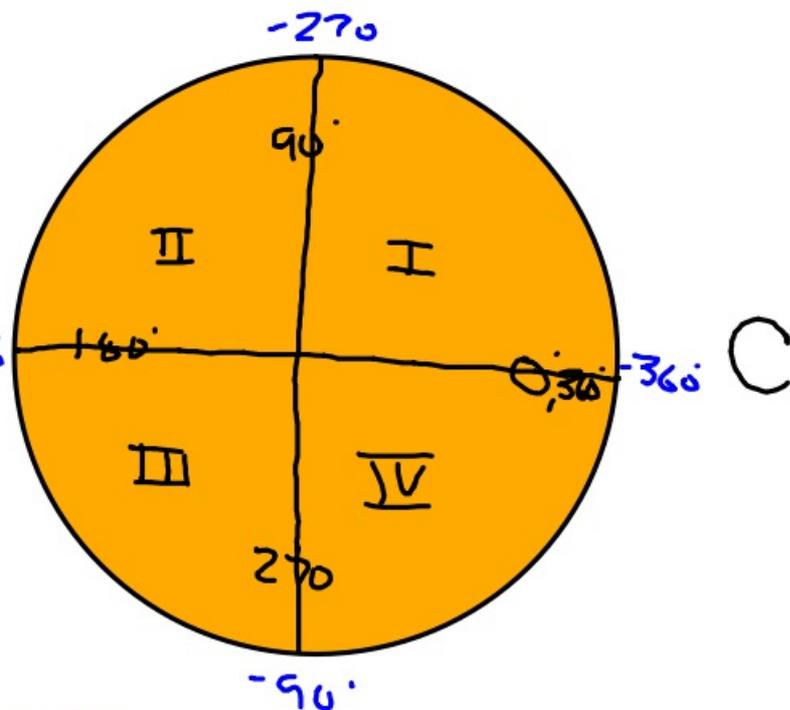
③  $-100^\circ$  III

④  $-400^\circ$  IV

⑤  $-290^\circ$  I

⑥  $600^\circ$  III

$\downarrow$   
 $600 - 360 = 240^\circ$



⑦  $\frac{5\pi}{6}$  ( $.8\bar{3}\pi$ ) II

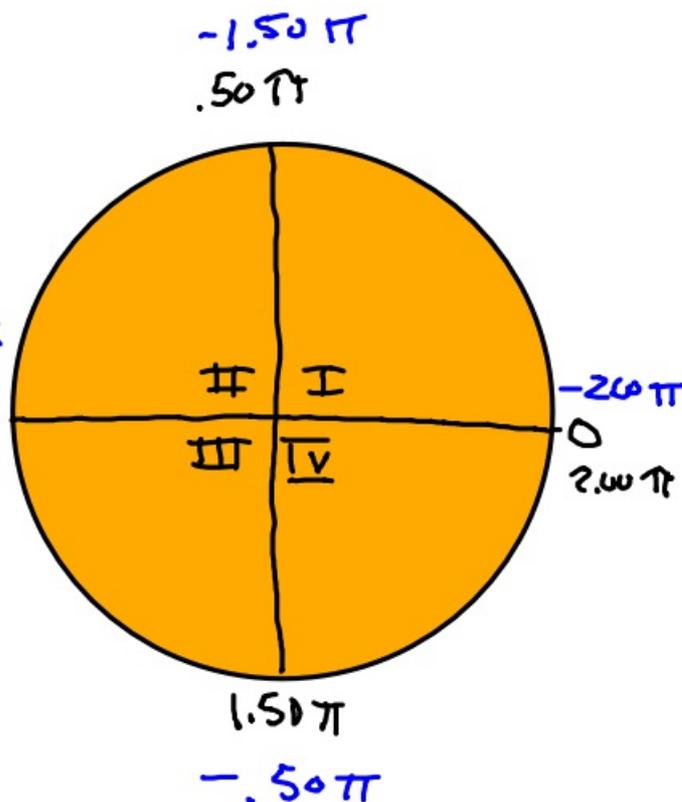
⑧  $\frac{4\pi}{3}$  ( $1.3\bar{3}\pi$ ) III

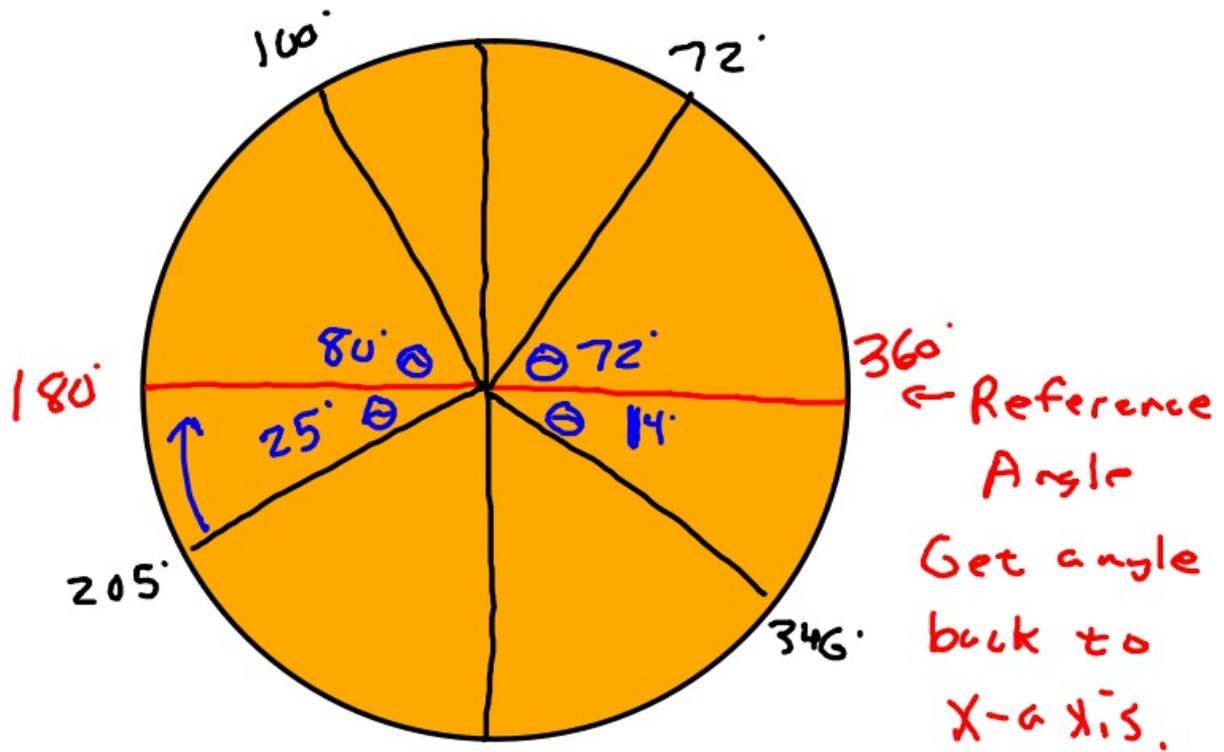
⑨  $\frac{7\pi}{5}$  ( $1.40\pi$ ) III

⑩  $\frac{11\pi}{6}$  ( $1.8\bar{3}\pi$ ) IV

⑪  $-\frac{3\pi}{4}$  ( $-.75\pi$ ) III

⑫  $-\frac{6\pi}{5}$  ( $-1.20\pi$ ) II





Give reference angle for

(13)  $200^\circ$   $20^\circ$

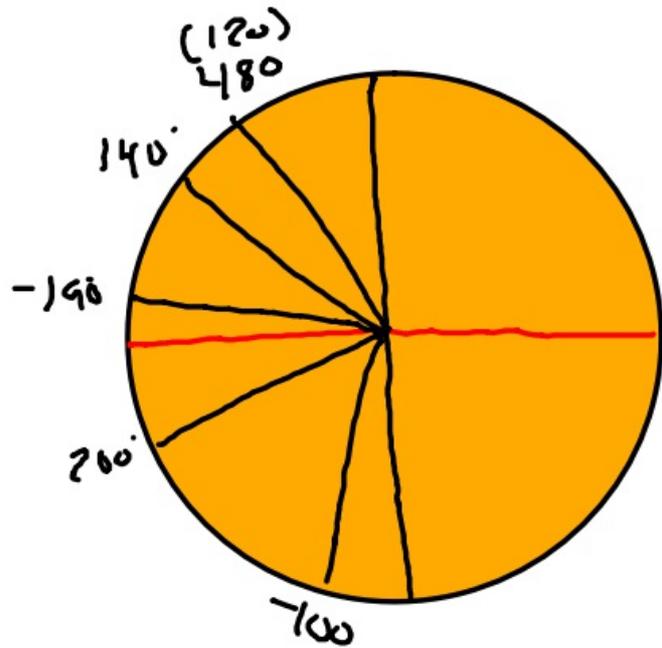
(14)  $140^\circ$   $40^\circ$

(15)  $-100^\circ$   $80^\circ$

(16)  $-190^\circ$   $10^\circ$

(17)  $480^\circ$   $60^\circ$

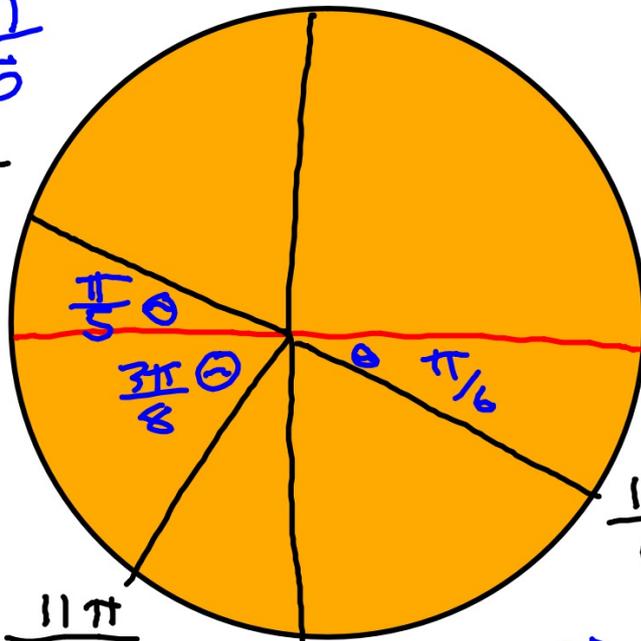
$$\begin{array}{r} -360 \\ \hline 120 \end{array}$$



$$\frac{5}{5} - \frac{4}{5} = \frac{1}{5}$$

$$\frac{4\pi}{5}$$

$$\pi$$



$$0, 2\pi$$

$$\frac{11\pi}{6}$$

$$\frac{11\pi}{8}$$

$$\frac{11}{8} - \frac{10}{8} = \frac{1}{8}$$

$$\frac{12}{6} - \frac{11}{6} = \frac{1}{6}$$

2-15-18 4<sup>th</sup> Trig

①  $280^\circ$  IV

②  $150^\circ$  II

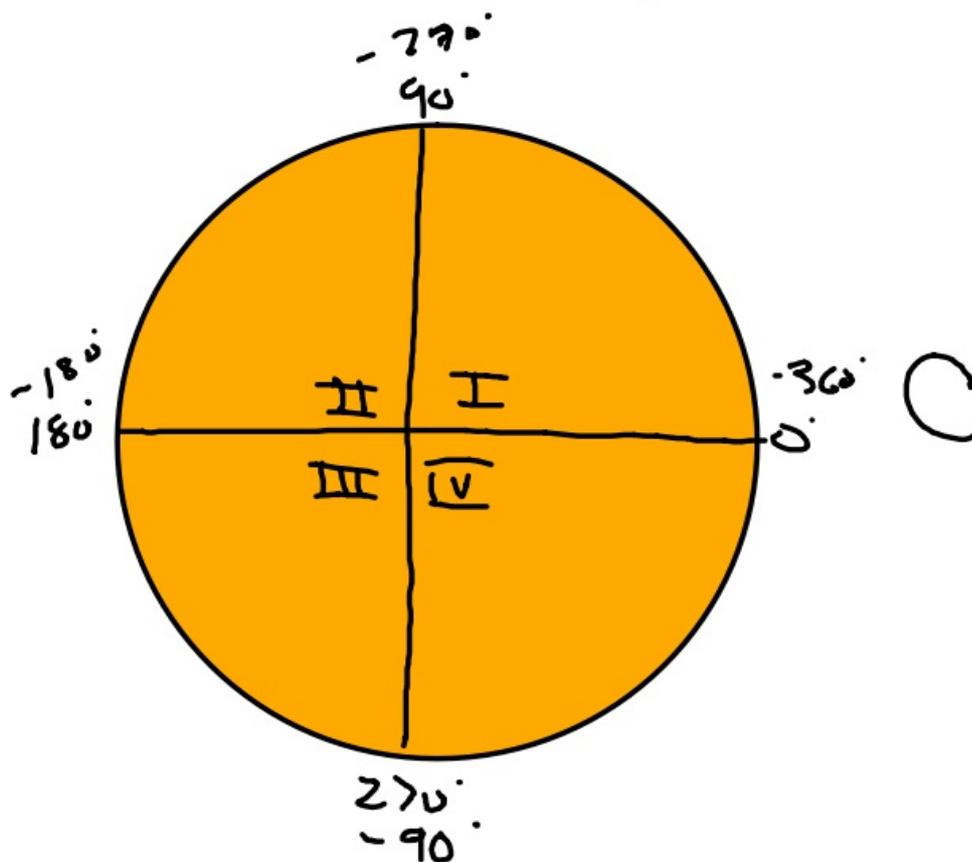
③  $-100^\circ$  III

④  $-250^\circ$  II

⑤  $-300^\circ$  I

⑥  $400^\circ$  I

$$\frac{-360}{40}$$



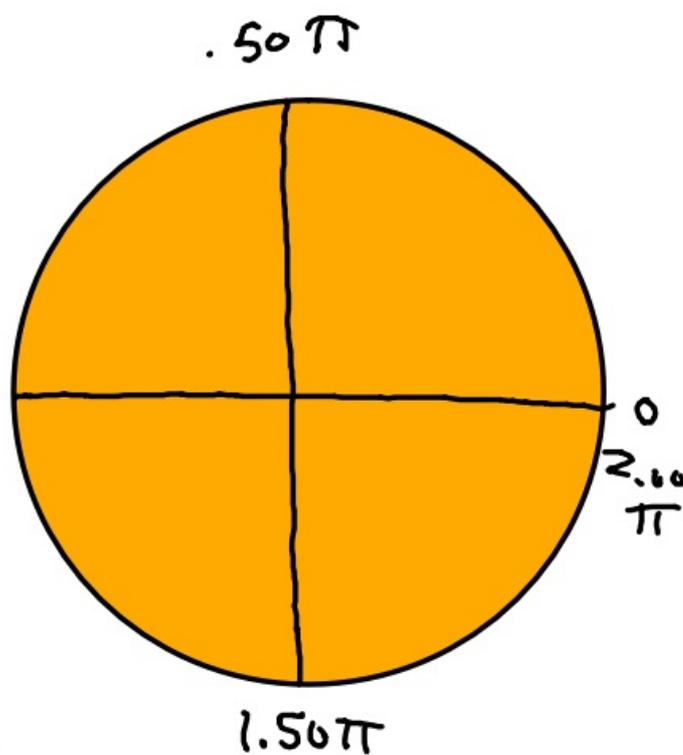
⑦  $\frac{5\pi}{6}$  ( $.83\pi$ ) II

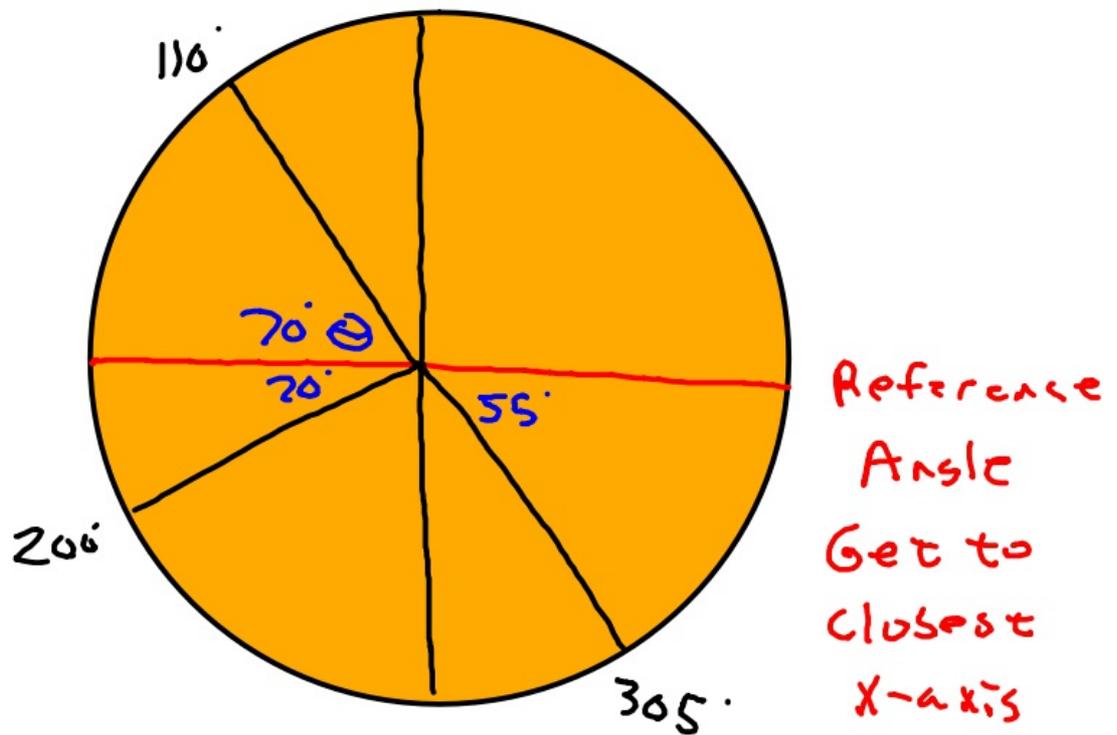
⑧  $\frac{7\pi}{15}$  ( $.46\pi$ ) I

⑨  $\frac{11\pi}{9}$  ( $1.22\pi$ ) III  $1.00\pi$

⑩  $\frac{13\pi}{7}$  ( $1.87\pi$ ) IV

⑪  $-\frac{5\pi}{8}$  ( $-.625\pi$ ) III





Give the reference angle for

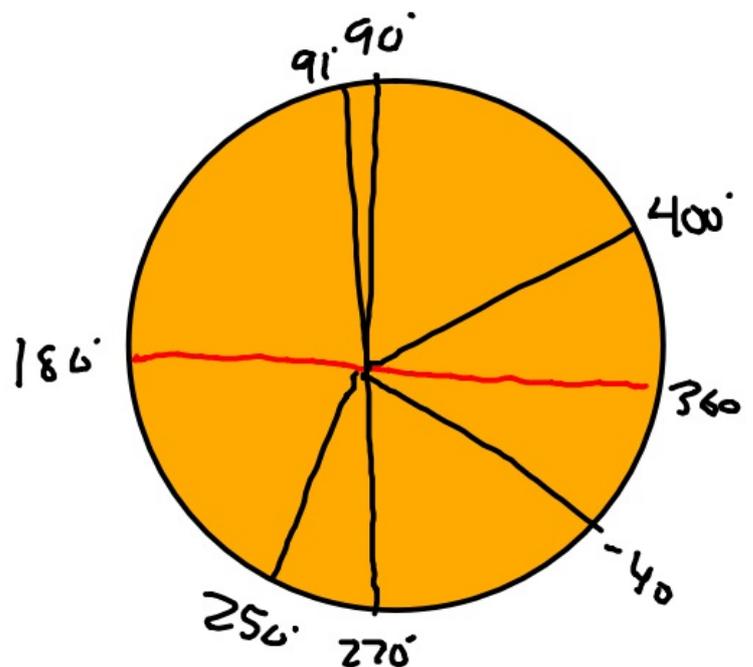
⑫  $250^\circ$   $70^\circ$

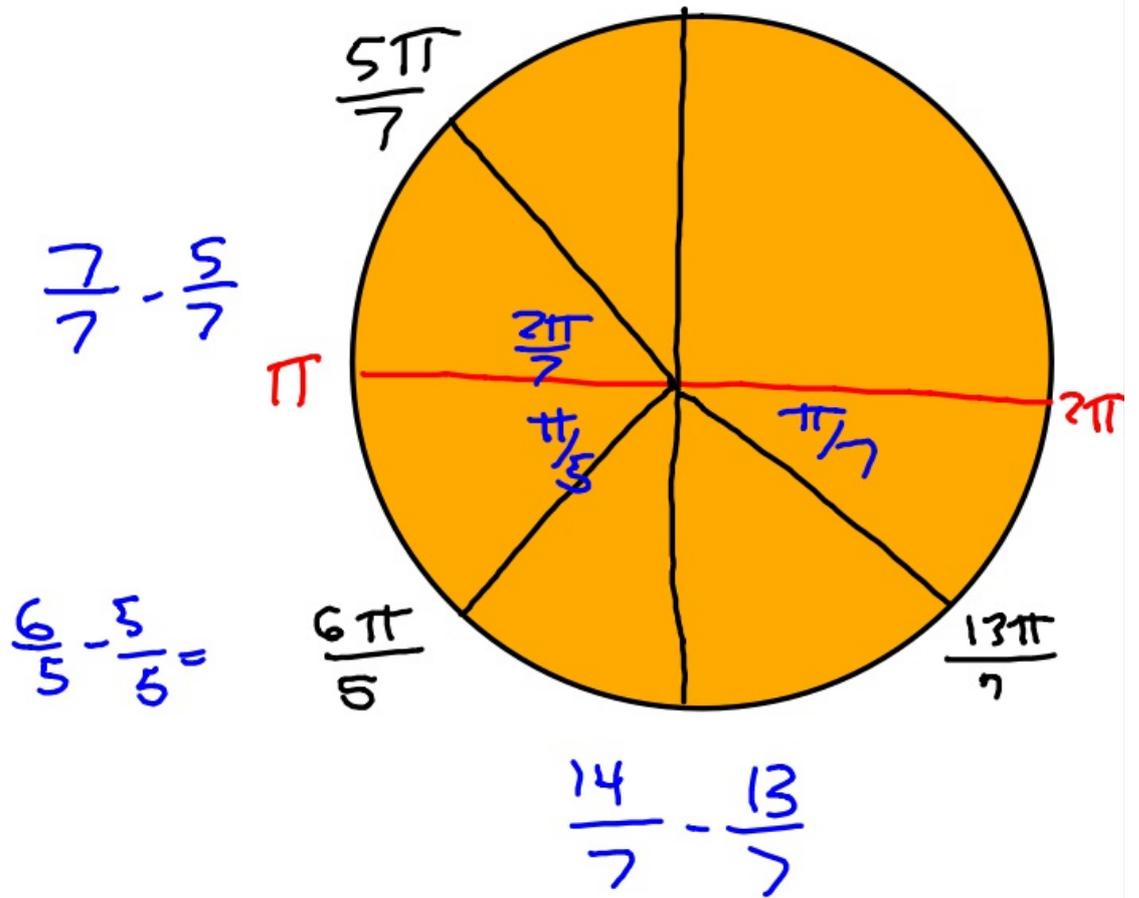
⑬  $-40^\circ$   $40^\circ$

⑭  $91^\circ$   $89^\circ$

⑮  $400^\circ$   $40^\circ$

⑯  $-150^\circ$   $30^\circ$





①  $\frac{2\pi}{3} \rightarrow \frac{\pi}{3}$

②  $\frac{11\pi}{9} = \frac{11}{9} - \frac{9}{9} = \frac{2\pi}{9}$

③  $\frac{12\pi}{7} = \frac{14}{7} - \frac{12}{7} = \frac{2\pi}{7}$

