

Section 7-5

$$\begin{aligned} 1 \quad \tan 100^\circ &= \tan(100^\circ) \\ &= -5.6713 \end{aligned}$$

$$\begin{aligned} 2 \quad \cot 276^\circ &= \cot(96^\circ) \\ &= -0.1051 \end{aligned}$$

$$\begin{aligned} 3 \quad \csc 5 &= \frac{1}{\sin 5} \\ &= -1.0428 \end{aligned}$$

$$\begin{aligned} 4 \quad \sec 49^\circ &= \frac{1}{\cos 49^\circ} \\ &= 1.5243 \end{aligned}$$

$$\begin{aligned} 5 \quad \tan 820 &= \tan\left(180^\circ \cdot 4 + \frac{5}{9} 180^\circ\right) \\ &= \tan 100 \end{aligned}$$

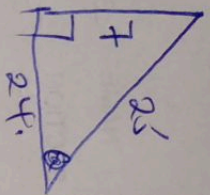
$$\begin{aligned} 6 \quad \sec 290 &= \frac{1}{\cos(290)} \\ &= \frac{1}{\cos(290^\circ)} \end{aligned}$$

$$\begin{aligned} 7 \quad \cot 185 &= \cot(185 - 180) \\ &= \cot(5^\circ) \end{aligned}$$

$$8 \quad \csc \frac{2\pi}{3} = \frac{1}{\sin\left(\frac{2\pi}{3}\right)}$$

Section 7.5

9 $\sin \alpha = -\frac{7}{25}$

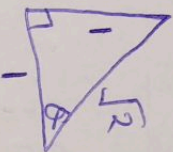


$25^2 - 7^2 = 576$ ~~246~~
 $= 24$

$\cos \alpha = -\frac{24}{25}$, $\tan \alpha = \frac{7}{24}$, $\csc \alpha = \frac{1}{\sin} = -\frac{25}{7}$,

$\sec \alpha = \frac{1}{\cos} = -\frac{25}{24}$

10 $\sec \alpha = \frac{1}{\cos} = \cos = \frac{-1}{\sqrt{2}}$



$\tan \alpha = \frac{1}{1}$, $\sin \alpha = \frac{-1}{\sqrt{2}}$, $\csc \alpha = -\sqrt{2}$, $\cos \alpha = \frac{-1}{\sqrt{2}}$

11 $\csc 300 = \frac{1}{\sin 300}$ $\sin 300 = \cos (90 - 300)$

$= \frac{1}{\cos (-90)} = -\frac{2\sqrt{3}}{3}$

12 $\sec -225 = \frac{1}{\cos (-225)} = -\sqrt{2}$

13 $\cot 180 = \text{undefined}$

14 $\tan 240 = \tan 60$
 $\tan 60 = \sqrt{3}$

Section 7.6

$$1 \quad \tan^{-1} 0.23 = 0.22606 \\ = 12.95^\circ$$

$$2 \quad \sin^{-1} 0.345 = 0.35223 \\ = 20.18^\circ$$

$$3 \quad \cos^{-1} \frac{3}{4} = 0.72273 \\ = 41.41^\circ$$

$$4 \quad \tan^{-1} (-0.23) = -0.22606 \\ = -12.95^\circ$$

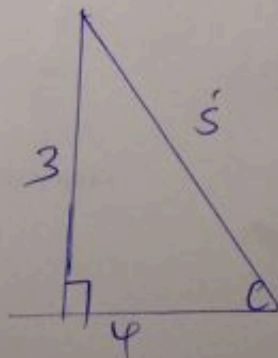
$$5 \quad \sin^{-1} 1 = +90^\circ$$



$$6 \quad \cos^{-1} 1 = 0^\circ$$

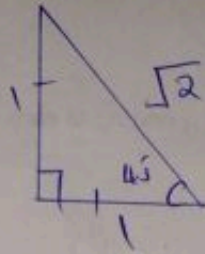


$$7 \quad \tan^{-1} \left(-\frac{3}{4}\right) = -36.87^\circ$$

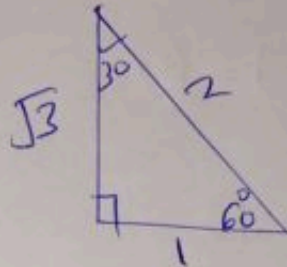


$$8 \quad \cos^{-1} \frac{1}{\sqrt{2}} = 45^\circ$$

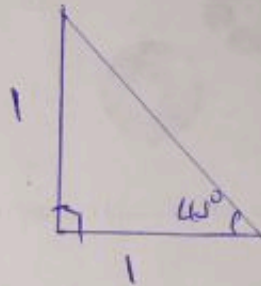
$$= 45^\circ$$



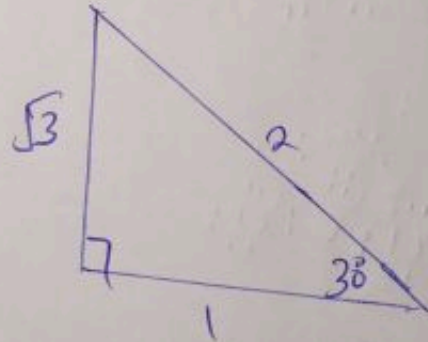
$$9 \quad \sin^{-1} \left(-\frac{\sqrt{3}}{2} \right) = -60^\circ$$



$$10 \quad \tan^{-1} 1 = 45^\circ$$



$$11 \quad \cos^{-1} \left(-\frac{1}{2} \right) = 120^\circ$$



$$12 \quad \sin^{-1} \left(-\frac{1}{\sqrt{2}} \right) = -45^\circ$$

