

$$- s = r\theta \cdot (\text{rad})$$

$$A = \frac{1}{2} r^2 \theta$$

$$- (x, y) \rightarrow r$$

$$\sin \theta \text{ or } \cos \theta$$

$$\left. \begin{array}{l} 3.14 \rightarrow 57 \\ 5.12 \rightarrow 12 \\ 8.15 \rightarrow 17 \end{array} \right\}$$

$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

$$\text{Area} = \frac{1}{2} ab \sin C$$

6.0
#19 $\overline{AB} + \overline{BC}$

$$\tan \gamma = \frac{6}{12} = \frac{1}{2}, \gamma = \tan^{-1} \frac{1}{2}$$

$$\tan \alpha = \frac{3}{12} = \frac{1}{4}$$

$$\alpha = \tan^{-1} \frac{1}{4}$$

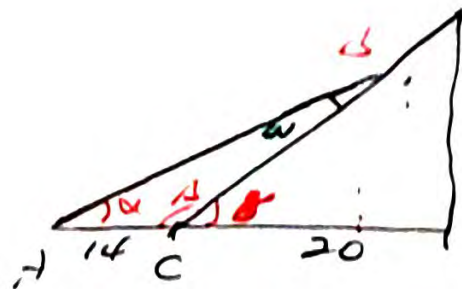
$$\begin{aligned} \beta &= 180^\circ - \gamma \\ &= 180^\circ - \tan^{-1} \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \omega &= 180^\circ - \alpha - \beta \\ &= 180^\circ - \tan^{-1} \frac{1}{4} - 180^\circ + \tan^{-1} \frac{1}{2} \\ &= \tan^{-1} \frac{1}{2} - \tan^{-1} \frac{1}{4} \end{aligned}$$

$$\frac{AD}{\sin \beta} = \frac{14}{\sin \omega}$$

$$\overline{AB} = \frac{14 \sin(180^\circ - \tan^{-1} \frac{1}{2})}{\sin(\tan^{-1} \frac{1}{2} - \tan^{-1} \frac{1}{4})}$$

$$I = \frac{1}{2} r^2 \theta$$



6.10 11.3 $B = 34^\circ$ $C = 82^\circ$ $a = 5.6$

$$A = 180^\circ - 34^\circ - 82^\circ$$

$$= 64^\circ$$

$$\frac{b}{\sin B} = \frac{a}{\sin A}$$

$$b = \frac{5.6 \sin 34^\circ}{\sin 64^\circ}$$

$$c = \frac{5.6 \sin 82^\circ}{\sin 64^\circ}$$

$$b = 2 \quad c = 6 \quad B = 30^\circ$$

$$\frac{\sin C}{6} = \frac{\sin 30^\circ}{2}$$

$$\sin C = 3\left(\frac{1}{2}\right) > 1$$

\therefore No Triangle.