

$$\textcircled{1} \sin \theta = \frac{12}{13}$$

$$\cos \theta = \frac{5}{13}$$

$$\tan \theta = \frac{12}{5}$$

$$\theta = 1.17 \text{ radians}$$

$$\theta = 67.4^\circ$$

$$\textcircled{2} \textcircled{a} 25^\circ, 155^\circ, 205^\circ, 335^\circ$$

$$\textcircled{b} \sin 25^\circ = 0.4226$$

$$\cos 25^\circ = 0.9063$$

$$\tan 25^\circ = 0.4663$$

$$\textcircled{c} \sin 155^\circ = 0.4226$$

$$\cos 155^\circ = -0.9063$$

$$\tan 155^\circ = -0.4663$$

$$\sin 205^\circ = -0.4226$$

$$\cos 205^\circ = -0.9063$$

$$\tan 205^\circ = 0.4663$$

$$\sin 335^\circ = -0.4226$$

$$\cos 335^\circ = 0.9063$$

$$\tan 335^\circ = -0.4663$$

$$\textcircled{3} \text{ a) True}$$

$$\text{b) True}$$

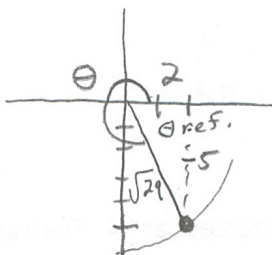
$$\text{c) True}$$

$$\text{d) True}$$

$$\textcircled{4} \text{ a) } \frac{\sqrt{2}}{2} \quad \text{b) } \sqrt{3} \quad \text{c) } -\frac{1}{2}$$

$$\text{d) } 1 \quad \text{e) } -\frac{1}{2} \quad \text{f) } 0$$

$\textcircled{5}$

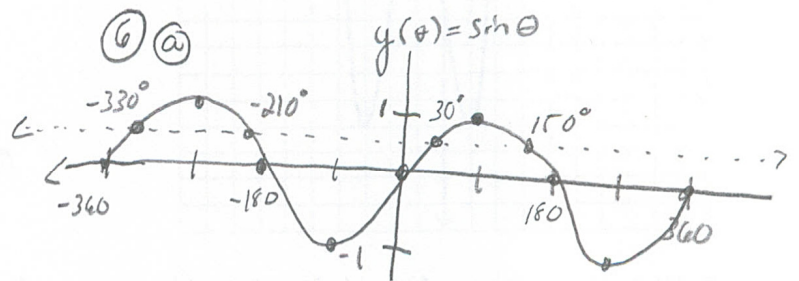


$$\sin \theta = \frac{5}{\sqrt{29}} = \frac{-5\sqrt{29}}{29}$$

$$\tan \theta = \frac{-5}{2}$$

$$\cos \theta = \frac{2}{\sqrt{29}} = \frac{2\sqrt{29}}{29}$$

$$\theta = 291.8^\circ \text{ or } -68.2^\circ$$



$\textcircled{6} \textcircled{a}$ 4 Times

$$\textcircled{c} \theta = \sin^{-1}\left(\frac{1}{2}\right) = 30^\circ, 150^\circ, -210^\circ, -330^\circ$$

$$\textcircled{7} \textcircled{a} \tan \theta = \frac{x}{50}$$

$$\textcircled{b} x(\theta) = 50 \tan \theta$$

$$\textcircled{c} \theta = \tan^{-1}\left(\frac{x}{50}\right)$$