

3장 연습문제

1.

- (a) -344°
- (b) -237°
- (c) 55°
- (d) 214°
- (e) $-\frac{16}{9}\pi$
- (f) $-\frac{9}{5}\pi$
- (g) $\frac{4}{3}\pi$
- (h) $\frac{15}{11}\pi$

3.

- (a) $\sin x > 0, \cos x > 0, \tan x > 0$
- (b) $\sin x < 0, \cos x < 0, \tan x > 0$
- (c) $\sin x > 0, \cos x < 0, \tan x < 0$
- (d) $\sin x < 0, \cos x < 0, \tan x > 0$

5.

- (a) $\cos \theta = -\frac{2\sqrt{2}}{3}, \tan \theta = -\frac{1}{2\sqrt{2}} = -\frac{\sqrt{2}}{4}$
- (b) $\sin \theta = -\frac{\sqrt{7}}{4}, \tan \theta = \frac{\sqrt{7}}{3}$
- (c) $\sin \theta = -\frac{3}{\sqrt{34}} = -\frac{3\sqrt{34}}{34}, \cos \theta = \frac{5}{\sqrt{34}} = \frac{5\sqrt{34}}{34}$

7.

- (a) $\frac{8}{3}\pi$
- (b) $\frac{2}{5}\pi$
- (c) $\frac{\pi}{3}$
- (d) 4π
- (e) 8π
- (f) π

9.

(a) $\frac{\sqrt{6} + \sqrt{2}}{4}$

(b) $\frac{\sqrt{6} + \sqrt{2}}{4}$

(c) $2 - \sqrt{3}$

(d) $-2 + \sqrt{3}$

11.

(a) $\sqrt{2} \sin \left(\theta - \frac{\pi}{4} \right)$

(b) $\sqrt{2} \cos \left(\theta + \frac{\pi}{4} \right)$

(c) $2 \sin \left(\theta + \frac{\pi}{3} \right)$

(d) $2 \cos \left(\theta - \frac{\pi}{6} \right)$

13.

정현파 파형의 모양은 바뀌지 않으며 주기는 반으로 줄어든다.

15.

$3292.7[\text{W}]$