

Chapter 6 Pretest ANSWERS

1. a) $x = \frac{2\pi}{3} + 2\pi k \quad x = \frac{4\pi}{3} + 2\pi k \quad k \in \mathbf{Z}$

b) $x = \frac{\pi}{6} + 2\pi k \quad x = \frac{7\pi}{6} + 2\pi k \quad k \in \mathbf{Z}$

2. a) $\theta = 45^\circ + 360^\circ k \quad \theta = 135^\circ + 360^\circ k \quad k \in \mathbf{Z}$

b) $\theta = 135^\circ + 360^\circ k \quad \theta = 315^\circ + 360^\circ k \quad k \in \mathbf{Z}$

3. a) $x = \frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$

b) $x = \frac{3\pi}{2}, \frac{7\pi}{6}, \frac{11\pi}{6}$

4. a) $\theta = 0^\circ, 180^\circ, 120^\circ, 240^\circ$

b) $\theta = 210^\circ, 330^\circ$

5. a) $-\frac{\pi}{3}$

b) $\frac{5\pi}{6}$

c) $-\frac{\pi}{4}$

d) $\frac{\pi}{6}$

e) $\frac{\pi}{3}$

f) $\frac{3\pi}{4}$

g) $\frac{\pi}{6}$

h) $-\frac{\pi}{2}$

i) 0

j) $\frac{\pi}{2}$

k) π

l) 0