

Exercises 1.1

1. In which quadrant does the given point lie?

- a. $\frac{3\pi}{4}$ b. $-\frac{9\pi}{7}$ c. $\frac{11\pi}{3}$ d. $\frac{7\pi}{6}$
e. $-\frac{7\pi}{4}$ f. $-\frac{7\pi}{6}$ g. $-\frac{\pi}{3}$ h. $\frac{13\pi}{6}$

2. Give four other real numbers which correspond to the same point on the unit circle as the given number.

- a. $\frac{\pi}{3}$ b. $\frac{\pi}{6}$ c. $\frac{3\pi}{4}$ d. $\frac{4\pi}{3}$ e. $\frac{5\pi}{6}$ f. $\frac{\pi}{4}$

Name a point which is symmetric to the given point with respect to (a) the u -axis; (b) the v -axis; (c) the origin.

3. $\frac{\pi}{6}$ 4. $\frac{\pi}{3}$ 5. $\frac{3\pi}{4}$ 6. $\frac{5\pi}{8}$
7. $\frac{3\pi}{7}$ 8. $\frac{5\pi}{9}$ 9. $\frac{\pi}{12}$ 10. $\frac{\pi}{10}$

