

Convert to radians:

1. 35°

$$\frac{7\pi}{36}$$

2. -410°

$$-\frac{41\pi}{18}$$

3. 147° (use a calculator)

$$2.566$$

Convert to degrees:

4. $\frac{5\pi}{8}$

$$112.5^\circ$$

5. $-\frac{7\pi}{6}$

$$-210^\circ$$

6. 6.56 (use a calculator)

$$375.86^\circ$$

Find two other angles, one negative and one positive, which are coterminal to θ .

7. $\theta = 60^\circ$

$$420^\circ$$

$$-300^\circ$$

8. $\theta = -210^\circ$

$$150^\circ$$

$$-570^\circ$$

9. $\theta = 341^\circ$

$$701^\circ$$

$$-19^\circ$$

10. $\theta = \frac{5\pi}{4}$

$$\frac{13\pi}{4}$$

$$-\frac{3\pi}{4}$$

11. $\theta = -\pi$

$$\pi$$

$$-3\pi$$

Name the quadrant in which the angle θ lies.

12. $\sin\theta > 0, \cos\theta < 0$

II

13. $\sin\theta < 0, \tan\theta < 0$

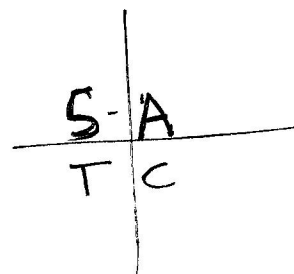
IV

14. $\csc\theta > 0, \cos\theta < 0$

II

15. $\sec\theta < 0, \sin\theta > 0$

II



Find the exact value of each of the six trig functions of the given angle.

16. $5\pi/6$

$$\sin\theta = \frac{1}{2}$$

$$\csc\theta = 2$$

$$\cos\theta = -\frac{\sqrt{3}}{2}$$

$$\sec\theta = \frac{-2}{\sqrt{3}} = -\frac{2\sqrt{3}}{3}$$

$$\tan\theta = \frac{-1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$$

$$\cot\theta = -\sqrt{3}$$

17. 585°

$$\sin\theta = -\frac{\sqrt{2}}{2}$$

$$\csc\theta = -\frac{2}{\sqrt{2}} = -\sqrt{2}$$

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

$$\sec\theta = \frac{-2}{\sqrt{2}} = -\sqrt{2}$$

$$\tan\theta = 1$$

$$\cot\theta = 1$$

Draw each angle in standard position, and find its reference angle.

a) $\theta = 50^\circ$

b) $\theta = 120^\circ$

c) $\theta = 165^\circ$

d) $\theta = 240^\circ$

e) $\theta = 90^\circ$

f) $\theta = -180^\circ$

g) $\theta = 45^\circ$

h) $\theta = 270^\circ$

i) $\theta = 400^\circ$

j) $\theta = 750^\circ$

k) $\theta = -270^\circ$

l) $\theta = -60^\circ$

