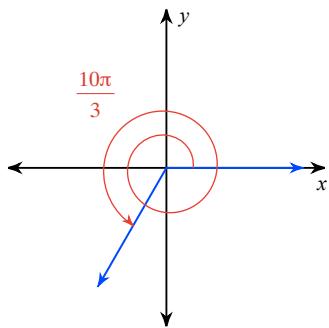


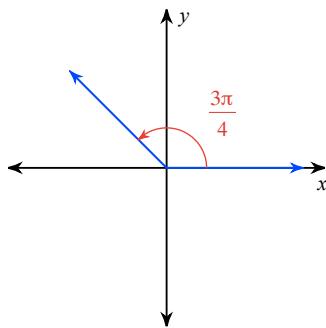
Reference Angles

Find the reference angle. Use a highlighter to highlight the reference angle for each problem.

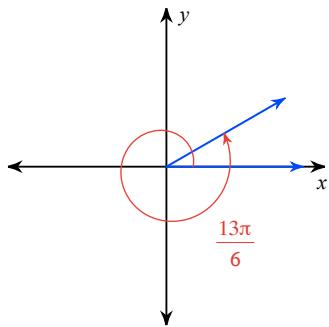
1)



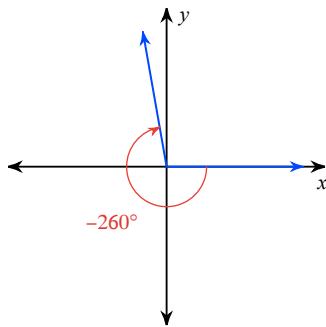
2)



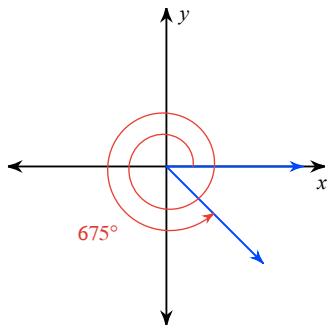
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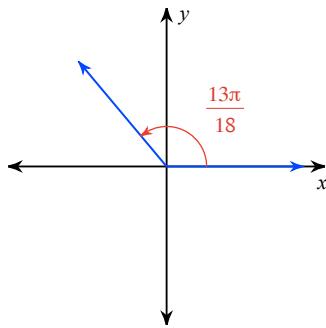
4)



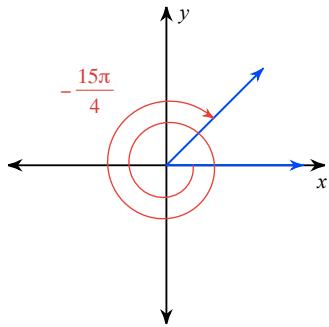
5)



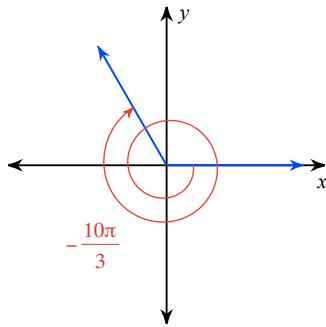
6)



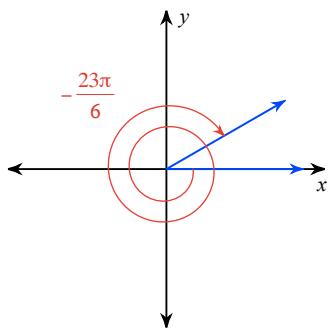
7)



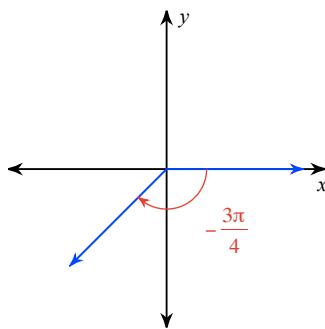
8)



9)



10)



Give the measure of the reference angle θ' for each angle θ in standard position.

11) 171°

12) 133°

13) 305°

14) 505°

15) -110°

16) -200°

17) -907°

18) 1002°

Find the exact value of the six trigonometric functions for each angle.

19) 150°

20) 135°

21) 225°

22) $\frac{7\pi}{6}$

23) $\frac{7\pi}{4}$

24) $-\frac{\pi}{3}$

25) $\frac{9\pi}{4}$

26) $-\frac{15\pi}{4}$

27) 1350°

28) 585°

If $0 \leq \theta \leq 2\pi$, find the values of θ that make each statement true.

29) $\cos \theta = \frac{1}{2}$

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

31) $\tan \theta = -1$

32) $\cot \theta = 1$

33) $\sec \theta = \sqrt{2}$

34) $\csc \theta = -\sqrt{2}$

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

36) $\tan \theta = \sqrt{3}$

If $0 \leq \theta \leq 360$, find the value of θ that makes each statement true. Express your answer in degrees.

37) $\tan \theta = 1$ and $\sin \theta \geq 0$

38) $\cos \theta = \frac{\sqrt{3}}{2}$ and $\tan \theta \geq 0$

39) $\sin \theta = \frac{1}{2}$ and $\cos \theta \leq 0$

40) $\cos \theta = -\frac{1}{2}$ and $\sin \theta \geq 0$

41) $\sin \theta = -\frac{\sqrt{3}}{2}$ and $\cos \theta \leq 0$

42) $\cos \theta = -\frac{\sqrt{3}}{2}$ and $\sin \theta \leq 0$

43) $\sin \theta = -1$ and $\cos \theta = 0$

44) $\sec \theta = \sqrt{2}$ and $\csc \theta = -\sqrt{2}$

45) $\cot \theta = -\sqrt{3}$ and $\sec \theta = \frac{2\sqrt{3}}{3}$