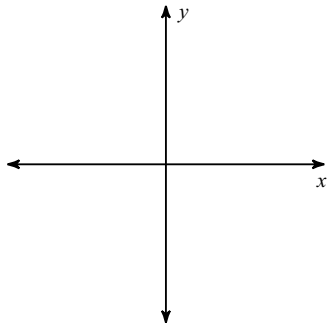


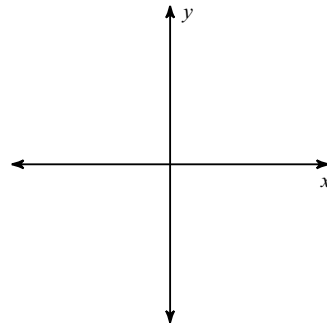
### Chapter 13 Review

**Draw an angle with the given measure in standard position.**

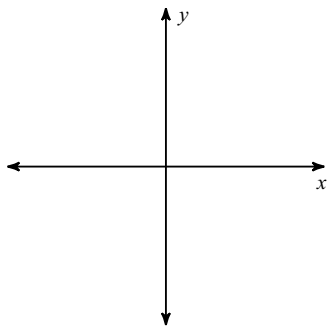
1)  $60^\circ$



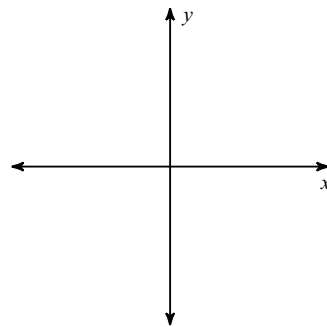
2)  $45^\circ$



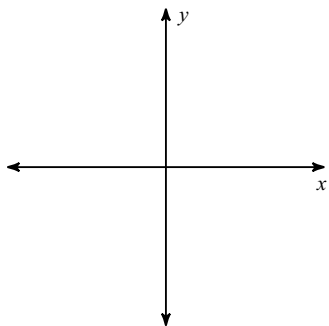
3)  $-\frac{67\pi}{18}$



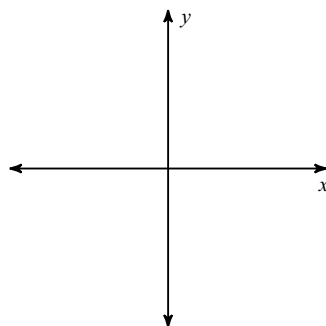
4)  $\frac{5\pi}{4}$



5)  $-\frac{3\pi}{2}$



6)  $-560^\circ$



**Find the reference angle.**

7)  $-355^\circ$

8)  $435^\circ$

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

10)  $290^\circ$

11)  $145^\circ$

12)  $440^\circ$

**Find a positive and a negative coterminal angle for each given angle.**

13)  $-225^\circ$

14)  $-215^\circ$

15)  $-\frac{73\pi}{90}$

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

17)  $\pi$

18)  $-\frac{34\pi}{9}$

**Convert each degree measure into radians and each radian measure into degrees.**

19)  $60^\circ$

20)  $510^\circ$

21)  $-\frac{17\pi}{4}$

22)  $-\frac{5\pi}{6}$

23)  $495^\circ$

24)  $-120^\circ$

**Find the exact value of each trigonometric function.**

25)  $\tan 270^\circ$

26)  $\csc 870^\circ$

27)  $\tan 300^\circ$

28)  $\tan 540^\circ$

29)  $\cos -945^\circ$

30)  $\cos -360^\circ$

31)  $\sin \frac{7\pi}{4}$

32)  $\tan \frac{7\pi}{4}$

33)  $\tan \frac{\pi}{6}$

34)  $\cos -\frac{13\pi}{6}$

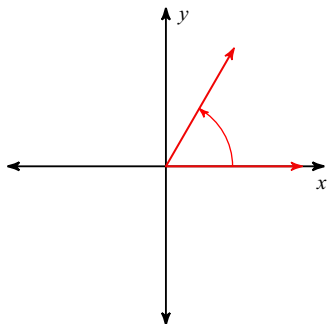
35)  $\sin -\frac{7\pi}{3}$

36)  $\sin \frac{11\pi}{3}$

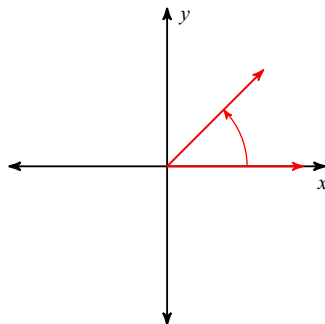
# Chapter 13 Review

**Draw an angle with the given measure in standard position.**

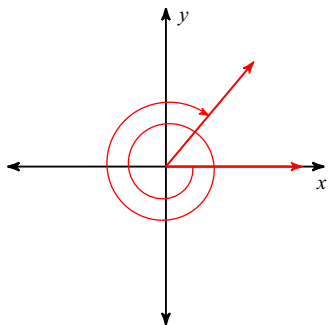
1)  $60^\circ$



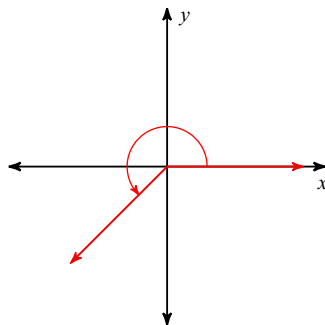
2)  $45^\circ$



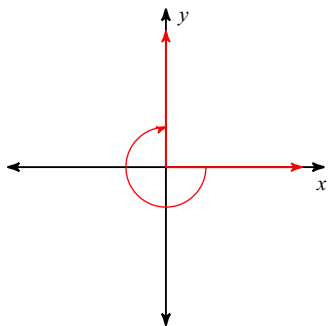
3)  $-\frac{67\pi}{18}$



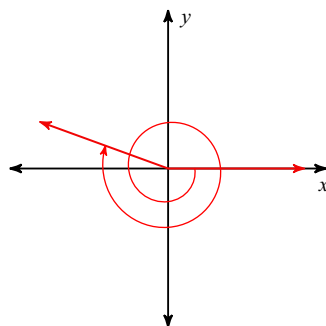
4)  $\frac{5\pi}{4}$



5)  $-\frac{3\pi}{2}$



6)  $-560^\circ$



**Find the reference angle.**

7)  $-355^\circ$

$5^\circ$

8)  $435^\circ$

$75^\circ$

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

$\frac{\pi}{4}$

10)  $290^\circ$

$70^\circ$

11)  $145^\circ$

$35^\circ$

12)  $440^\circ$

$80^\circ$

Find a positive and a negative coterminal angle for each given angle.

13)  $-225^\circ$

$135^\circ$  and  $-585^\circ$

14)  $-215^\circ$

$145^\circ$  and  $-575^\circ$

15)  $-\frac{73\pi}{90}$

$\frac{107\pi}{90}$  and  $-\frac{253\pi}{90}$

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

$\frac{17\pi}{6}$  and  $-\frac{7\pi}{6}$

17)  $\pi$

$3\pi$  and  $-\pi$

18)  $-\frac{34\pi}{9}$

$\frac{2\pi}{9}$  and  $-\frac{16\pi}{9}$

Convert each degree measure into radians and each radian measure into degrees.

19)  $60^\circ$

$\frac{\pi}{3}$

20)  $510^\circ$

$\frac{17\pi}{6}$

21)  $-\frac{17\pi}{4}$

$-765^\circ$

22)  $-\frac{5\pi}{6}$

$-150^\circ$

23)  $495^\circ$

$\frac{11\pi}{4}$

24)  $-120^\circ$

$-\frac{2\pi}{3}$

Find the exact value of each trigonometric function.

25)  $\tan 270^\circ$

Undefined

26)  $\csc 870^\circ$

2

27)  $\tan 300^\circ$

$-\sqrt{3}$

28)  $\tan 540^\circ$

0

29)  $\cos -945^\circ$

$-\frac{\sqrt{2}}{2}$

30)  $\cos -360^\circ$

1

31)  $\sin \frac{7\pi}{4}$

$-\frac{\sqrt{2}}{2}$

32)  $\tan \frac{7\pi}{4}$

-1

33)  $\tan \frac{\pi}{6}$

$\frac{\sqrt{3}}{3}$

34)  $\cos -\frac{13\pi}{6}$

$\frac{\sqrt{3}}{2}$

35)  $\sin -\frac{7\pi}{3}$

$-\frac{\sqrt{3}}{2}$

36)  $\sin \frac{11\pi}{3}$

$-\frac{\sqrt{3}}{2}$