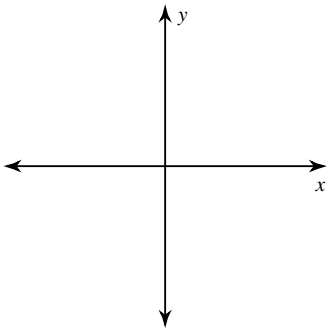
Algebra 2 Trigonometry Name_____

Practice 12.1-12.3B

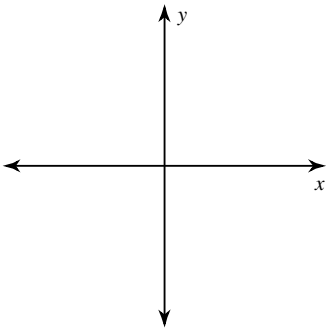
Date_____ Period____

Draw an angle with the given measure in standard position.

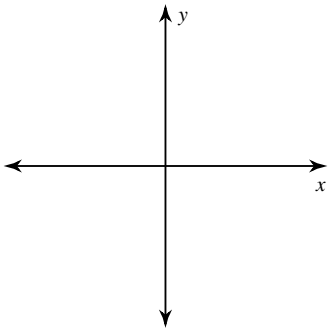
1) $-490°$



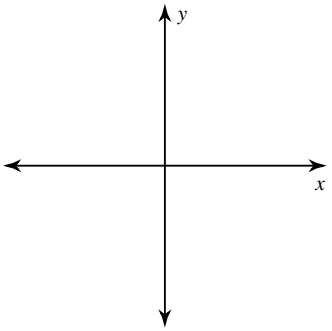
2) $-\frac{7\pi}{4}$



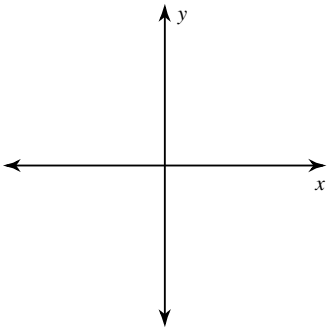
3) $400°$



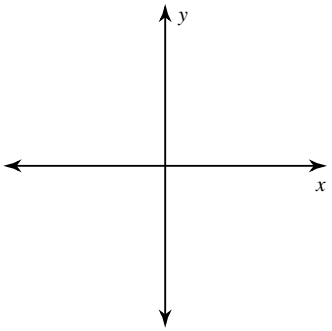
4) $\frac{5\pi}{3}$



5) $\frac{11\pi}{6}$



6) $-545°$



State the quadrant in which the terminal side of each angle lies.

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

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

9) $-\frac{8\pi}{3}$

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

11) $650°$

12) $-290°$

Find the reference angle.

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

14) $-685°$

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

16) $-\frac{11\pi}{4}$

17) $300°$

18) $-\frac{19\pi}{6}$

19) $-210°$

20) $750°$

21) $420°$

22) $-540°$

23) $-390°$

24) $-60°$

25) $120°$

26) $-405°$

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

27) $390°$

28) $\frac{5\pi}{3}$

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

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

30) $135°$

Use the given point on the terminal side of angle θ to find the value of the trigonometric function indicated.

31) $\cos\theta; (9, 13)$

32) $\csc\theta; (8, -\sqrt{17})$

Find the exact value of each trigonometric function.

33) sec −720°

34) sec 1035°

35) cos 150°

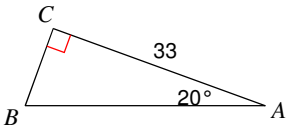
36) tan −45°

37) tan 120°

38) cot 600°

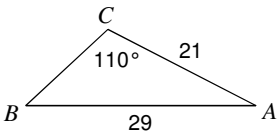
Solve each triangle. Round answers to the nearest tenth.

39)



Solve each triangle. Round your answers to the nearest tenth.

40)



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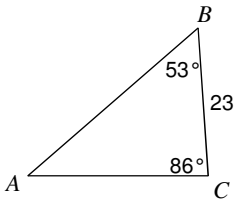

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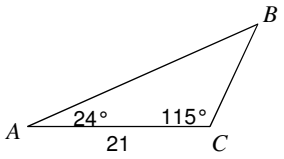

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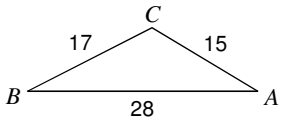

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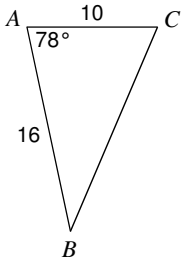
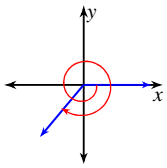
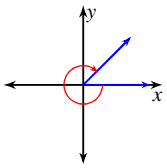
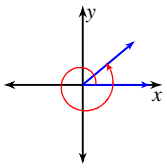
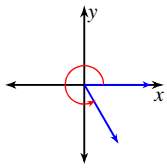


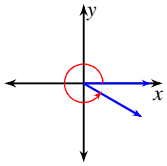
Answers to Practice 12.1-12.3B (ID: 1)

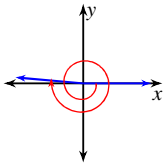
1) 

2) 

3) 

4) 

5) 

6) 

7) IV

8) IV

9) III

10) IV

11) IV

12) I

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

14) 35°

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

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

17) 60°

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

19) 10°

20) 60°

21) 40°

22) 10°

23) 10°

24) 20°

25) 60°

26) 25°

27) 30° and −330°

28) $\frac{11\pi}{3}$ and $-\frac{\pi}{3}$

29) 495°

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

31) $\frac{9\sqrt{10}}{50}$

32) $-\frac{\sqrt{17}}{9}$

33) 1

34) $\sqrt{2}$

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

36) −1

37) $-\sqrt{3}$

38) $\frac{\sqrt{3}}{3}$

39) $m\angle B = 70°,\ a = 12,\ c = 35.1$

40) $m\angle A = 27.1°, m\angle B = 42.9°, a = 14.1$

41) $m\angle A = 41°, b = 28, c = 35$

42) $m\angle B = 41°, c = 29, a = 13$

43) $m\angle C = 122°, m\angle A = 31°, m\angle B = 27°$

44) $m\angle B = 35°, m\angle C = 67°, a = 17$