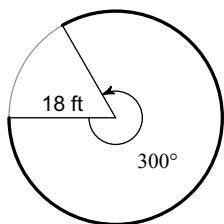


Arc Length, Sketching Angles, Reference Angles

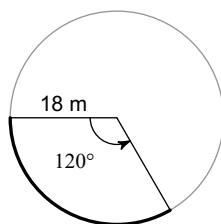
Date _____ Period _____

Find the length of each arc.

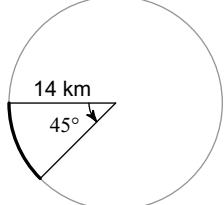
1)



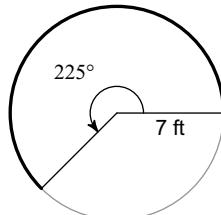
2)



3)



4)

**FAST PRACTICE State the quadrant each angle lies. Use I, II, III, IV.**

5) 126°

6) 278°

7) 310°

8) -70°

9) -20°

10) 118°

11) 174°

12) 60°

13) -208°

14) 35°

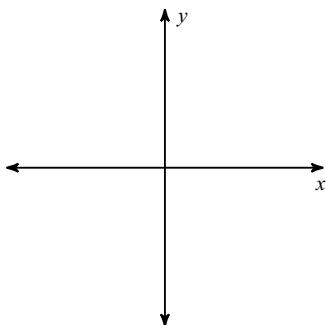
Find a positive and a negative coterminal angle for each given angle.

15) 600°

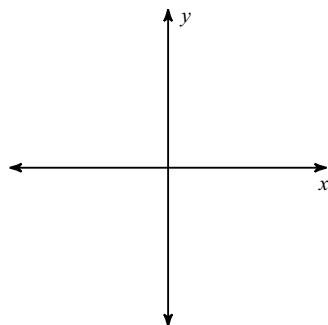
16) -394°

Draw an angle with the given measure in standard position.

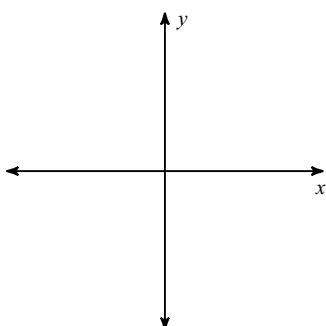
17) 320°



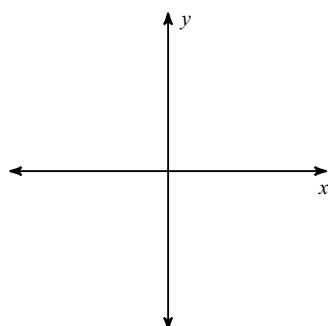
18) 125°



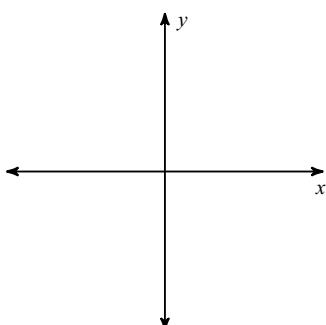
19) 230°



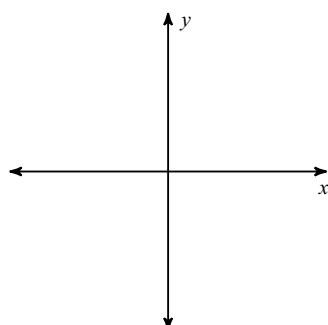
20) 55°



21) -200°



22) -225°



Sketch the angle and find the reference angle.

23) -115°

24) -320°

25) 250°

26) -225°

27) 280°

28) -160°

29) 170°

30) -260°

31) -305°

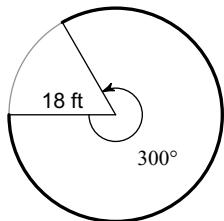
32) -230°

Arc Length, Sketching Angles, Reference Angles

Date _____ Period _____

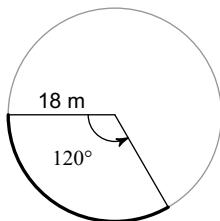
Find the length of each arc.

1)



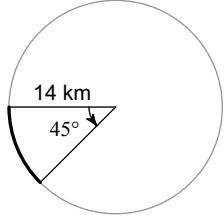
$$30\pi \text{ ft}$$

2)



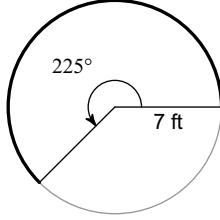
$$12\pi \text{ m}$$

3)



$$\frac{7\pi}{2} \text{ km}$$

4)



$$\frac{35\pi}{4} \text{ ft}$$

FAST PRACTICE State the quadrant each angle lies. Use I, II, III, IV.

5) 126°

II

6) 278°

IV

7) 310°

IV

8) -70°

IV

9) -20°

IV

10) 118°

II

11) 174°

II

12) 60°

I

13) -208°

II

14) 35°

I

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

15) 600°

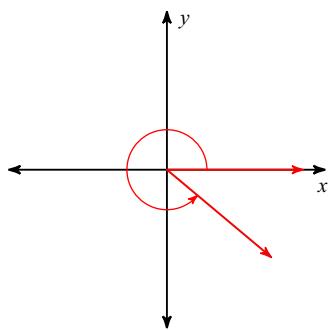
 240° and -120°

16) -394°

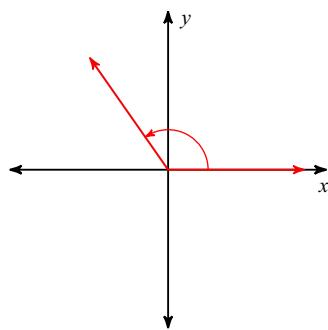
 326° and -34°

Draw an angle with the given measure in standard position.

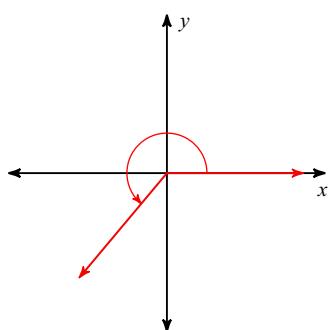
17) 320°



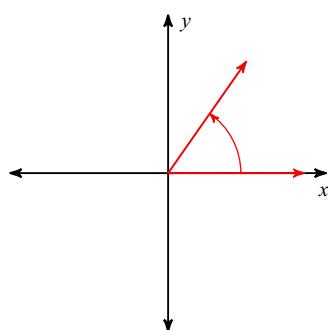
18) 125°



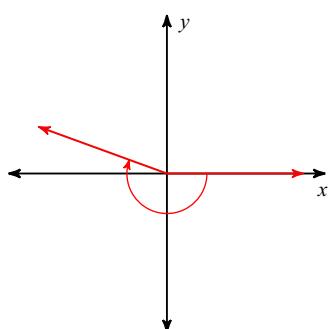
19) 230°



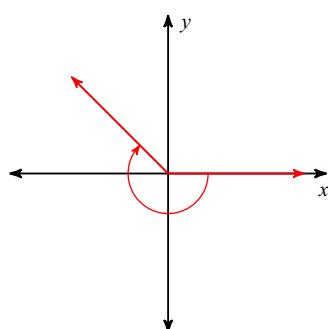
20) 55°



21) -200°



22) -225°



Sketch the angle and find the reference angle.

23) -115°

65°

25) 250°

70°

27) 280°

80°

29) 170°

10°

31) -305°

55°

24) -320°

40°

26) -225°

45°

28) -160°

20°

30) -260°

80°

32) -230°

50°