Secondary Math 2

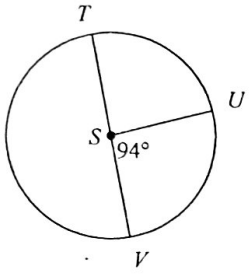
Name Key

Unit 9 Review

Date _____ Period ____

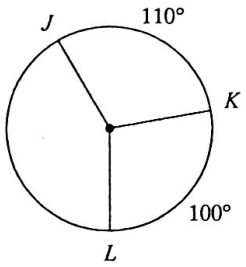
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

1) $m\angle TSU$



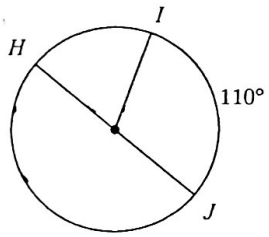
86°

2) $m\overset{\frown}{LJK}$



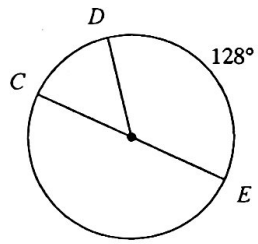
260°

3) $m\overset{\frown}{HI}$



70°

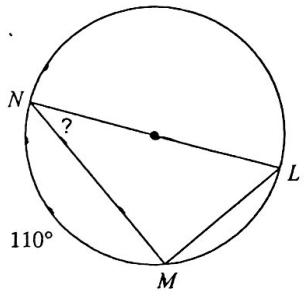
4) $m\overset{\frown}{DEC}$



308°

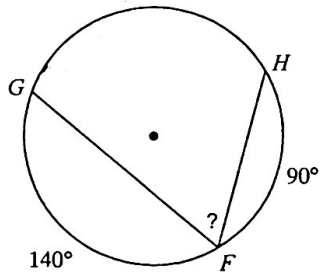
Find the measure of the arc or angle indicated.

5)



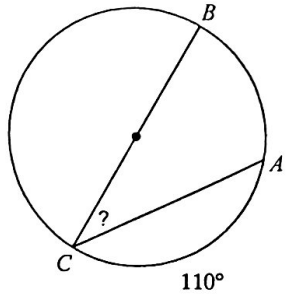
35°

6)



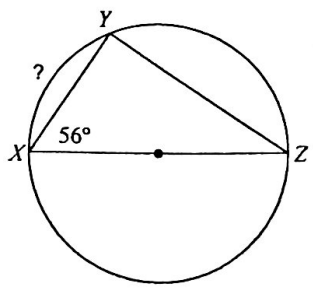
65°

7)



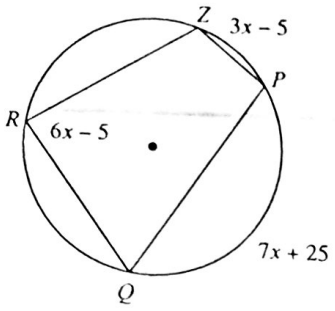
35°

8)



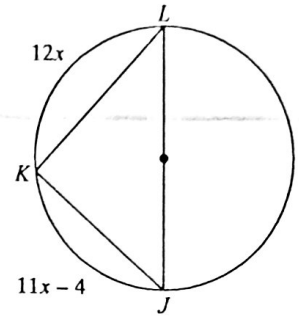
68°

9) Find $m\angle ZRQ$



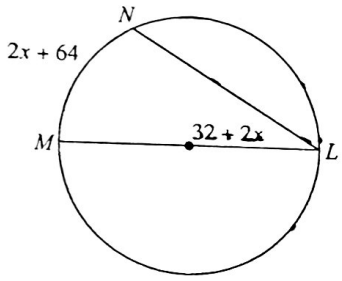
85°

10) Find $m\angle LJK$



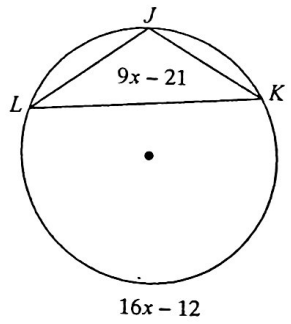
48°

11) Find $m\widehat{MN}$



64°

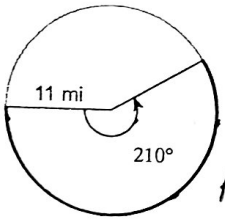
12) Find $m\angle LJK$



114°

Find arc length and sector area for each. Give both exact and approximate answers.

13)



Arc Length

Exact: $\frac{77\pi}{6}$ mi

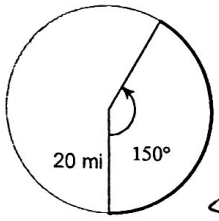
Approx: 40.32 mi

Sector Area

Exact: $\frac{847\pi}{12}$ mi^2

Approx: 221.74 mi^2

14)



Arc Length

Exact: $\frac{50\pi}{3}$ mi

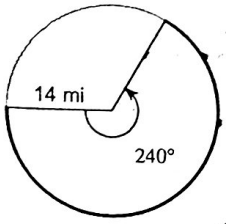
Approx: 52.36 mi

Sector Area

Exact: $\frac{500\pi}{3}$ mi^2

Approx: 523.60 mi^2

15)



Arc Length

Exact: $\frac{56\pi}{3}$ mi

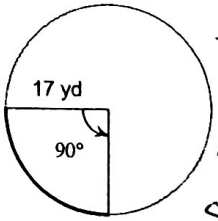
Approx: 58.64 mi

Sector Area

Exact: $\frac{392\pi}{3}$ mi^2

Approx: 410.50 mi^2

16)



Arc Length

Exact: $\frac{17\pi}{2}$ yd

Approx: 26.70 yd

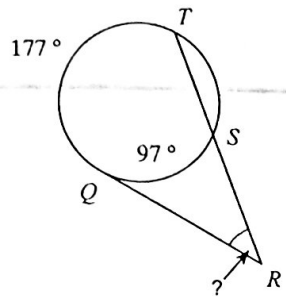
Sector Area

Exact: $\frac{289\pi}{4}$ yd^2

Approx: 226.98 yd^2

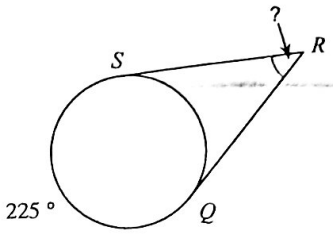
Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

17)



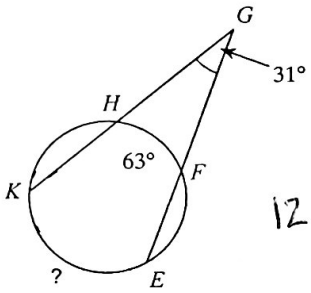
40°

18)



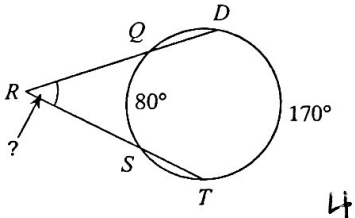
45°

19)



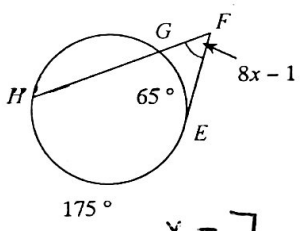
125°

20)



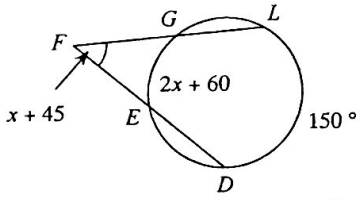
45°

Solve for *x*. Assume that lines which appear tangent are tangent.



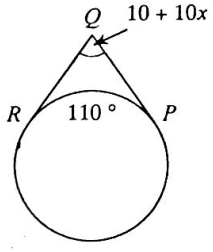
x = 7

22)



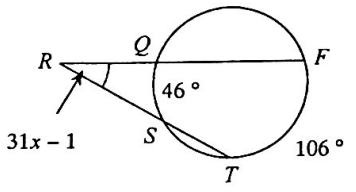
x = 0

23)



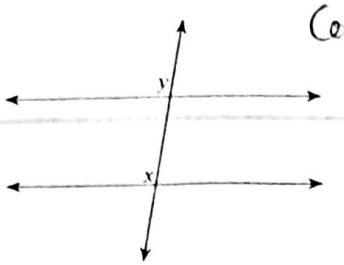
x = 6

24)

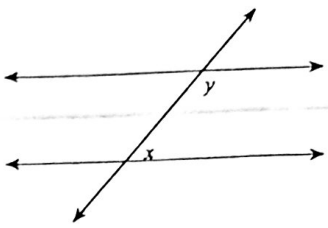


x = 1

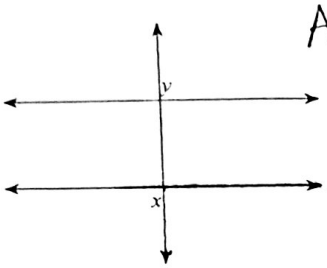
Identify the angle relationship. Then state if the angles are congruent or supplementary.

25) 

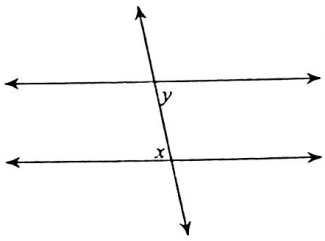
Corresponding
Congruent

26) 

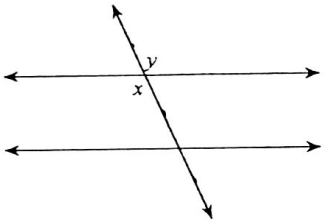
Same Side Interior
Supplementary

27) 

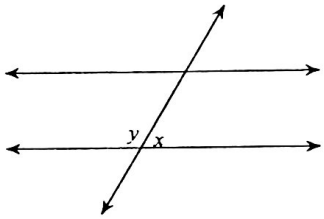
Alternate Exterior
Congruent

28) 

Alternate Interior
Congruent

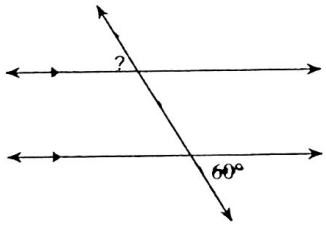
29) 

Vertical
Congruent

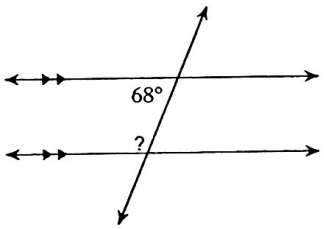
30) 

Adjacent
Supplementary

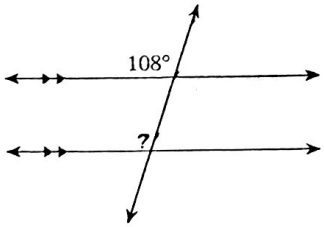
Find the measure of each angle indicated.

31) 

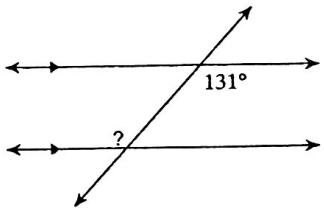
60°

32) 

112°

33) 

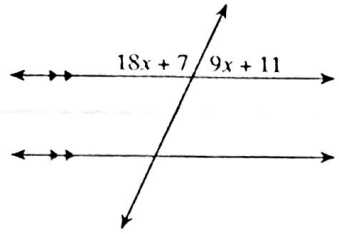
108°

34) 

131°

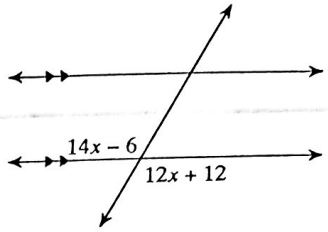
Solve for x.

35)



$x = 6$

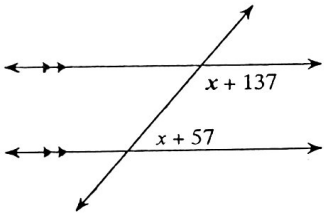
36)



$x = 9$

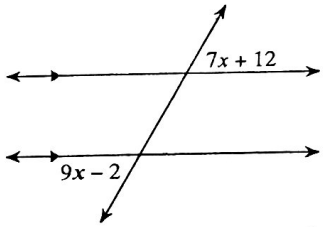
Find the measure of both angles.

37)



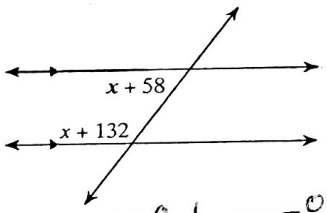
130° & 50°

38)



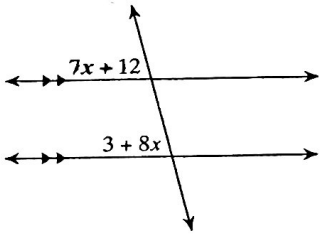
Both 61°

39)



53° & 127°

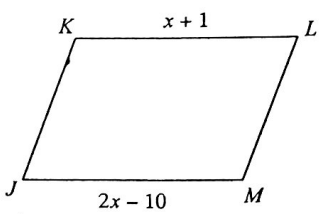
40)



Both 75°

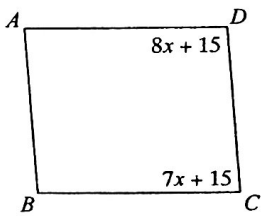
Find the measurement indicated in each parallelogram.

41) Find KL



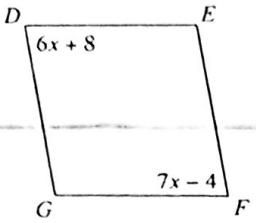
12 units

42) Find $m\angle D$



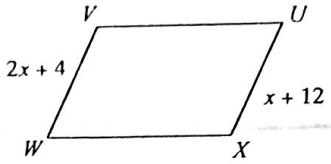
95°

43) Find $m\angle G$



100°

44) Find WV



20 units

Solve the following equations.

45) $0 = x^2 + 6x - 40$

$x = -10, 4$

46) $0 = 2x^2 - 22x + 56$

$x = 4, 7$

47) $0 = x^2 + 9x + 14$

$x = -7, -2$

48) $0 = 3x^2 + x - 10$

$x = -2, \frac{5}{3}$