Matching. Use the Word Bank below. Use some words more than once.  
\_\_\_\_1.  \_\_\_\_10. Point O  
\_\_\_\_2.  \_\_\_\_11.    
\_\_\_\_3. line \_\_\_\_12.   
\_\_\_\_4. Point T \_\_\_\_13. GYE  
\_\_\_\_5.  \_\_\_\_14. Point G  
\_\_\_\_6. MTH \_\_\_\_15. TY  
\_\_\_\_7. line \_\_\_\_16.   
\_\_\_\_8. MH \_\_\_\_17. GT  
\_\_\_\_9. Point A \_\_\_\_18.   
  
**Word Bank**  
A. Minor Arc B. Major Arc C. Radius D. Diameter E. Chord  
F. Secant G. Tangent H. Center I. Point of Tangency   
  
Sketch a diagram.  
**19.** Circle T with radii and **20.** Circle W with diameter , **21.** Circle O with chords ,   
 and chord . and tangent at point Y. and , and secant

G

E

O

Y

T

R

M

T

A

H

**l**

**m**

**l**

**m**

Determine whether XY is tangent to Circle Z.   
22. Given: XZ = 15 23. 24. Given: WY = 8

29

X

Y

Z

13

9

W

W

5

Z

Z

12

X Y

10

21

X

Y

Find the indicated arc lengths.

25. m YWZ = \_\_\_\_ 26. m MHT = \_\_\_\_ 27. m EG = \_\_\_\_; m ELG = \_\_\_\_

E

A

G

L

S

67o

88o

M

A

T

H

120o

W

X

Y

Z

80o

28. m MA = \_\_\_\_ 29. m BDC =\_\_\_\_; m BC = \_\_\_\_ 30. m LE = \_\_\_\_; m IEL = \_\_\_\_

Given: m IR = 45o; m RL = 45o  
 and m IE = 124o

Given: m MVA = 330o

M

A

V

S

A

B

C

D

E

82o

111o

123o

C

I

R

L

E

31. m RC =\_\_\_\_; m RCA = \_\_\_\_ 32. m OM = \_\_\_\_ 33. m CH = \_\_\_\_

Given: CH = HO = OR,   
 m CDR = 246o

C

H

O

R

D

S

(3x–50)o

210o

A

R

C

S

G

E

O

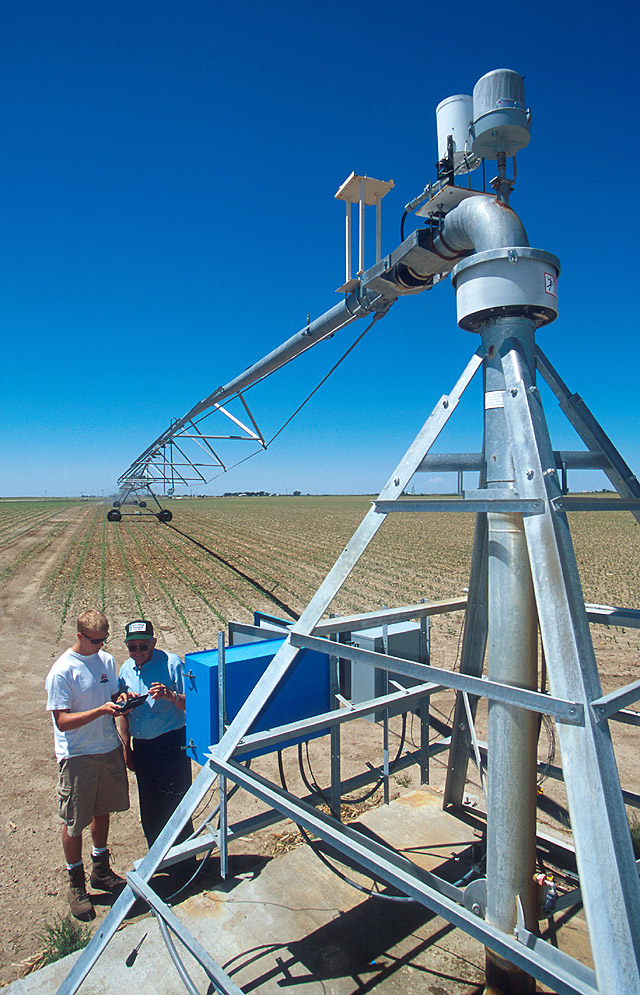
M

33o

(3x–10)o

xo

**APPLICATION:** A Center Pivot is a large sprinkler system used to irrigate crops. The long sprinkler   
 system is attached to a pivot in the center of the field and rotates around the center pivot.   
 If the sprinkler system is 400m long, the point of tangency   
 between the circle and the road is 300m from the house how   
 far is the pivot’s central hub from the house?



Arial view of center  
pivot crops/fields.

Field