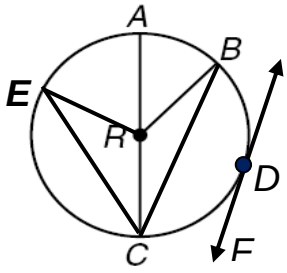
Geometry B **Name _____**
Unit 9 Additional Practice **Hour _____ Date _____**

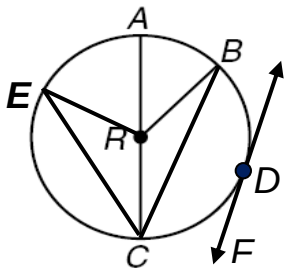
ASSIGNMENT

1. Refer to circle *R*.

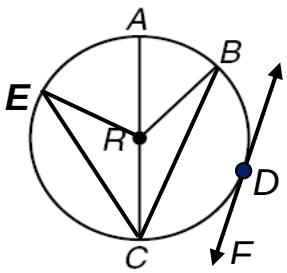
a. Name all radii.



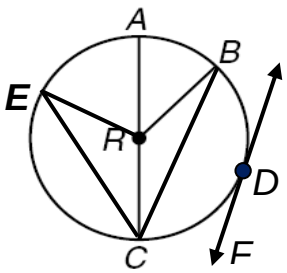
b. Name all diameters.



c. Name all chords.



d. Name a tangent line.



2. Suppose the radius of a circle is 16 inches. Find the circumference of the circle. Write the exact answer and the answer rounded to the nearest hundredth. **Show all calculations.**

exact circumference = _____

approximated circumference = _____

3. Suppose the diameter of a circle is 38 cm. Find the circumference of the circle. Write the exact answer and the answer rounded to the nearest hundredth. **Show all calculations.**

exact circumference = _____

approximated circumference = _____

4. Suppose the circumference of a circle is 51 mm. Find the diameter of the circle rounded to the nearest hundredth. **Show all calculations.**

diameter = _____

5. Suppose the circumference of a circle is 97 ft. Find the radius of the circle rounded to the nearest hundredth. **Show all calculations.**

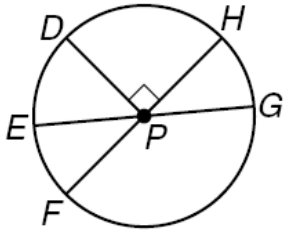
radius = _____

6. In circle *P*, $m\angle HPG = 27^o$ and $\overline{EG}$ is a diameter. Find the indicated measures.

a. $m\overset{\frown}{HG}$ = _____

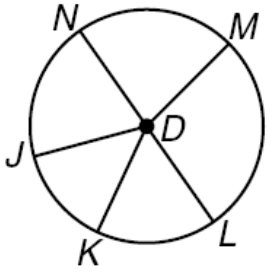
b. $m\overset{\frown}{DE}$ = _____

c. $m\overset{\frown}{GDF}$ = _____



7. In circle *D*, $m\overset{\frown}{NM} = 77^o$ and $\overline{NL}$ is a diameter. Find $m\angle MDL$.

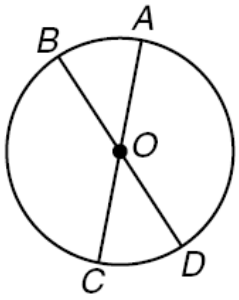
$m\angle MDL$ = _____



8. In circle O, $m\overset{\frown}{AD} = 145,^{o}$ and $\overline{BD}$ is a diameter. Find the indicated angle measures.

a. $m\angle AOD =$ _____

b. $m\angle COD =$ _____



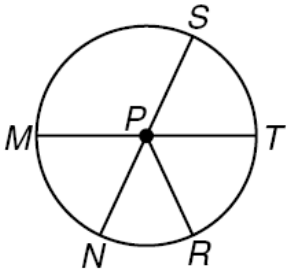
9. In circle P, $m\angle MPN = 64^{o}$, $m\angle TPR = 70^{o}$, and $\overline{MT}$ is a diameter. Find the indicated measures.

a. $m\overset{\frown}{MS} =$ _____

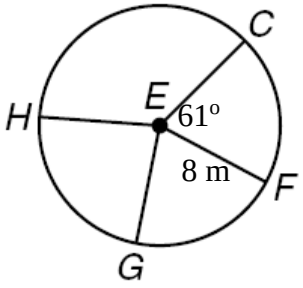
b. $m\overset{\frown}{ST} =$ _____

c. $m\overset{\frown}{SRM} =$ _____

d. $m\overset{\frown}{RS} =$ _____

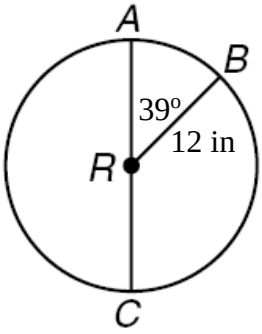


10. In circle E, find the length of $\overset{\frown}{CF}$ to the nearest hundredth. **Show all calculations.**



length of $\overset{\frown}{CF}$ = _____

11. In circle R, find the length of $\overset{\frown}{BC}$ to the nearest hundredth. **Show all calculations.**



length of $\overset{\frown}{BC}$ = _____

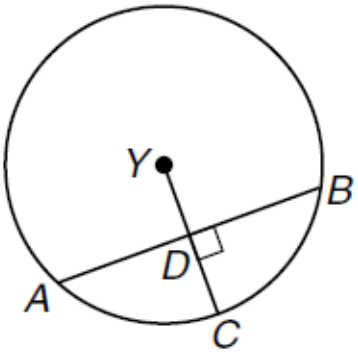
12. The radius of circle Y is 17 and $AB = 30$. Find each length. **Show any calculations.**

a. $AY =$ _____

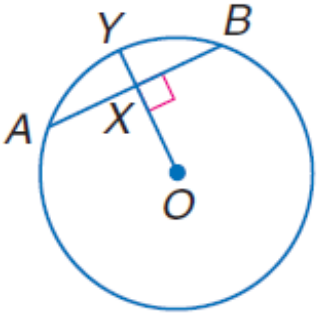
b. $AD =$ _____

c. $YD =$ _____

d. $DC =$ _____

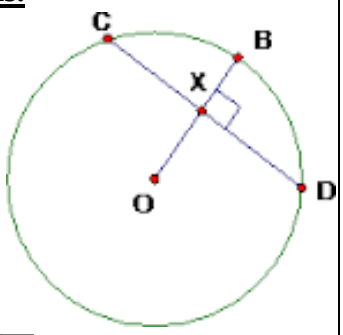


13. The radius of circle O is 11. If $YX = 3$, find AB. **Show all calculations.**



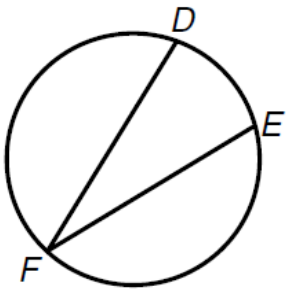
$AB =$ _____

14. If $CX = 8y + 5$ and $XD = 11y - 7$, find the value of y. **Show all calculations.**



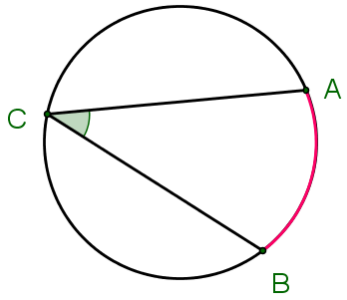
$y =$ _____

15. If $m\angle DFE = 32^o$, find $m\overset{\frown}{DE}$.



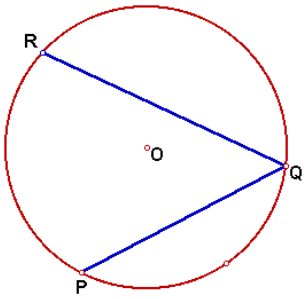
$m\overset{\frown}{DE}$ = _____

16. If $m\overset{\frown}{AB} = 95^o$, find $m\angle ACB$.



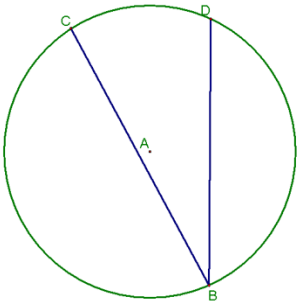
$m\angle ACB$ = _____

17. Suppose $m\overset{\frown}{RQ} = 150^o$ and $m\overset{\frown}{PQ} = 100^o$.
Find $m\angle RQP$.



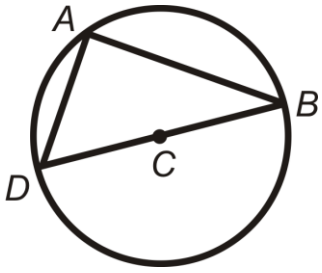
$m\angle RQP$ = _____

18. Suppose $m\overset{\frown}{CB} = 172^o$ and $m\overset{\frown}{BD} = 112^o$.
Find $m\angle CBD$.



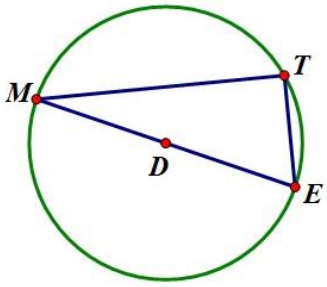
$m\angle CBD$ = _____

19. Suppose $m\angle DAB = 10x - 4$.
Find the value of x. **Show all calculations.**



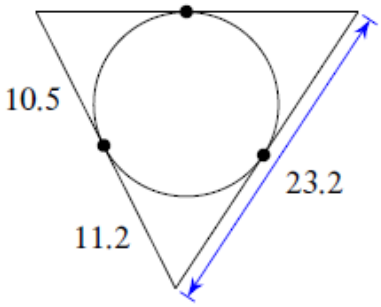
x = _____

20. Suppose $m\angle MTE = 7e + 6$.
Find the value of e. **Show all calculations.**



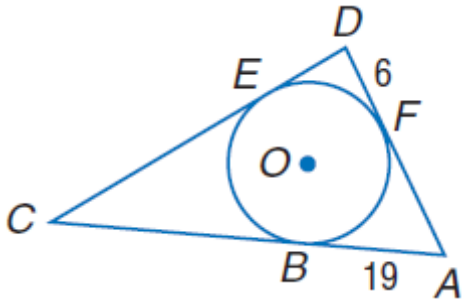
e = _____

21. Find the perimeter of the triangle below.
Show all work/calculations.



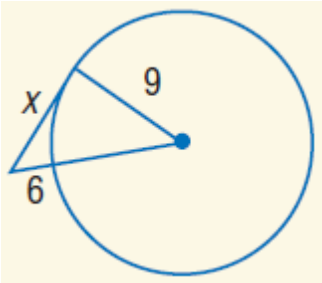
perimeter = _____

22. If $CE = 33$, find CA.
Show all work/calculations.



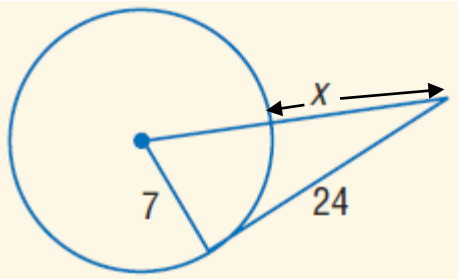
CA = _____

23. Find the value of x. Assume that segments that appear to be tangent are tangent.
Show all calculations.



x = _____

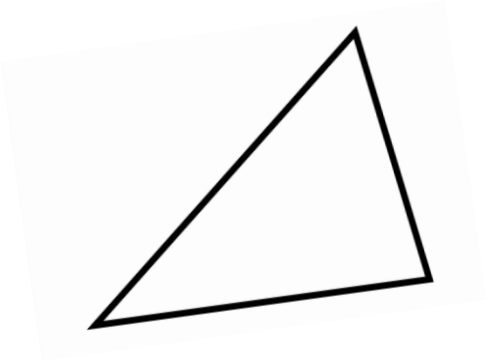
24. Find the value of x. Assume that segments that appear to be tangent are tangent.
Show all calculations.



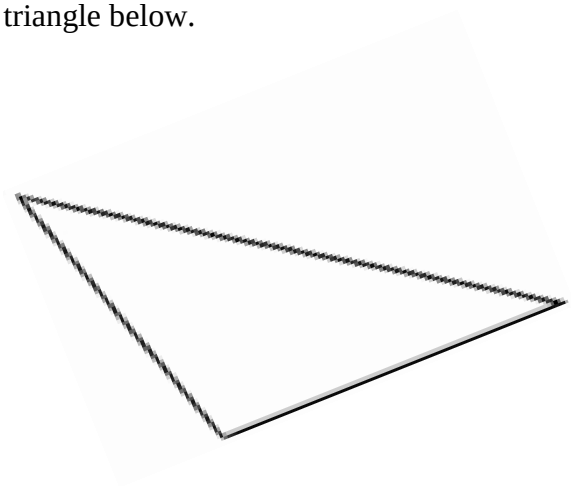
x = _____

25. Use constructions to circumscribe a circle about each triangle below.

a.



b.



For #26-31, write an equation for each circle.

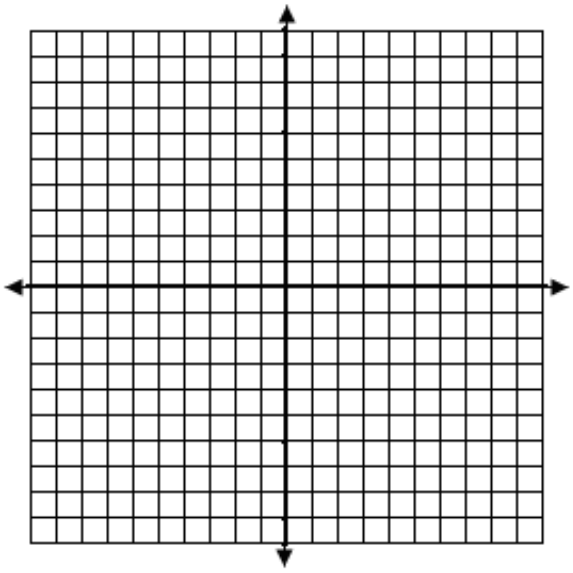
26. center at (8, -11), $r = 4$	**27.** center at (5, 9), $r = 7$	**28.** center at (0, -6), $d = 10$
29. center (5, 0), $d = 14$	**30.** center at the origin, radius = 6	**31.** center at (-12, -2), $r = 8$

For #32-37, identify the specified information.

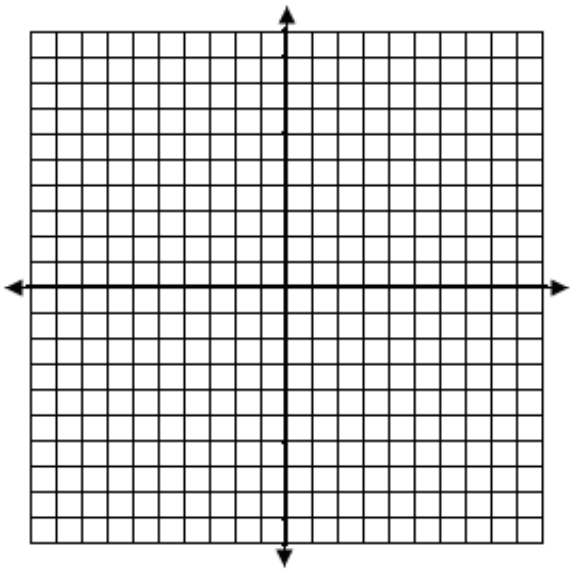
32. $(x-5)^2 + (y-7)^2 = 64$ center: _____ radius = _____	**33.** $(x+21)^2 + (y+32)^2 = 361$ center: _____ radius = _____	**34.** $(x-16)^2 + y^2 = 441$ center: _____ radius = _____
35. $x^2 + (y+11)^2 = 144$ center: _____ diameter = _____	**36.** $(x-28)^2 + (y-36)^2 = 25$ center: _____ diameter = _____	**37.** $(x+46)^2 + (y+63)^2 = 676$ center: _____ radius = _____

For #38 and 39, graph each circle.

38. $(x-5)^2 + (y+3)^2 = 16$

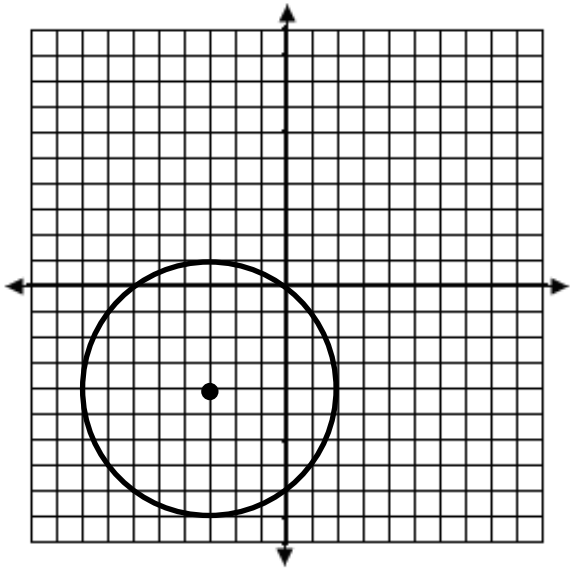


39. $(x-4)^2 + (y-2)^2 = 25$



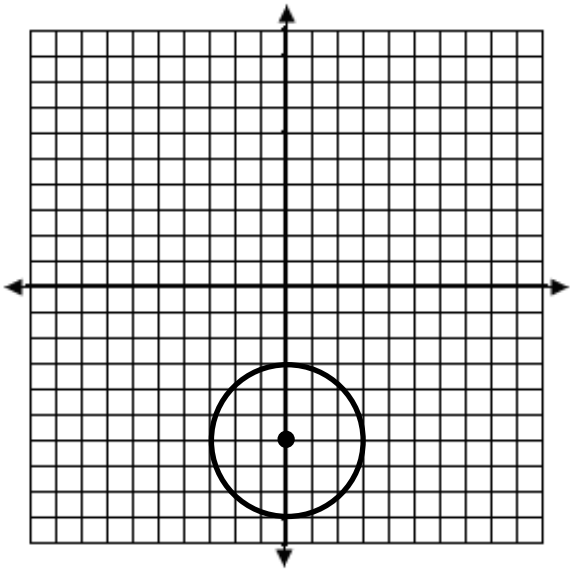
For #40 and 41, write the equation of each circle graphed below.

40.



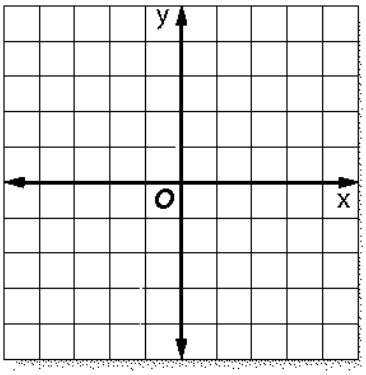
Equation: _____

41.



Equation: _____

42. Write the equation of the circle whose diameter has enpoints at (-4, 3) and (2, -1). Use the grid at the right to help visualize the problem. **Show any calculations.**



Equation: _____

Solutions:

1. a. $\overline{RE}, \overline{RA}, \overline{RB}, \overline{RC}$ b. $\overline{AC}$ c. $\overline{AC}, \overline{EC}, \overline{BC}$ d. $\overleftrightarrow{DF}$

2. $32\pi \approx 100.53$ inches

3. $38\pi \approx 119.38$ cm

4. 16.23 mm

5. 15.44 ft

6. a. 27^o b. 63^o c. 207^o

7. 103^o

8. a. 145^o b. 35^o

9. a. 116^o b. 64^o c. 244^o d. 134^o

10. 8.52 m

11. 29.53 in.

12. a. 17 b. 15 c. 8 d. 9

13. 15.1

14. $y = 4$

15. 64^o

16. 47.5^o

17. 55^o

18. 38^o

19. $x = 9.4$

20. $e = 12$

21. 67.4 units

22. 52

23. $x = 12$

24. $x = 18$

26. $(x - 8)^2 + (y + 11)^2 = 16$

27. $(x - 5)^2 + (y - 9)^2 = 49$

28. $x^2 + (y + 6)^2 = 25$

29. $(x - 5)^2 + y^2 = 49$

30. $x^2 + y^2 = 36$

31. $(x + 12)^2 + (y + 2)^2 = 64$

32. center: (5, 7), radius = 8

33. center: (-21, -32), radius = 19

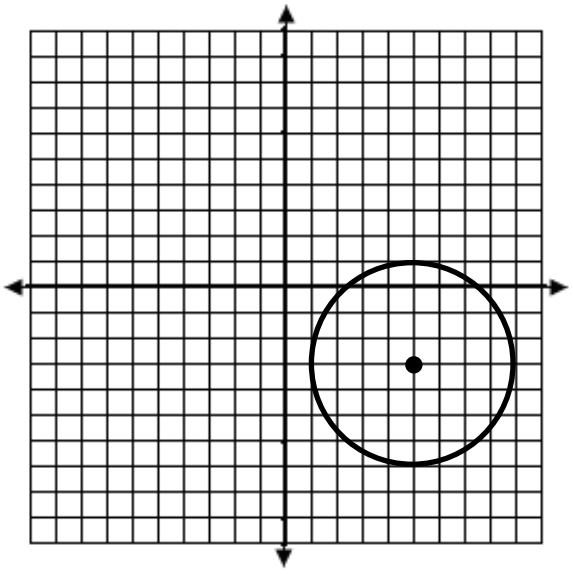
34. center: (16, 0), radius = 21

35. center: (0, -11), diameter = 24

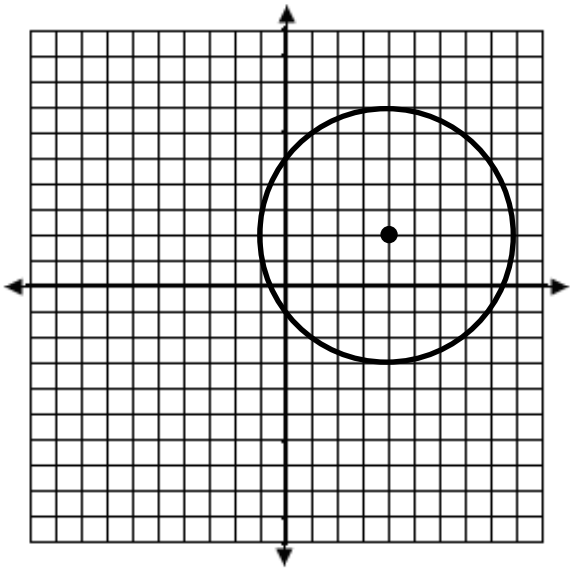
36. center: (28, 36), diameter = 10

37. center: (-46, -63), radius = 26

38.



39.



40. center (-3, -4), radius = 5
equation: $(x + 3)^2 + (y + 4)^2 = 25$

41. center (0, -6), radius = 3
equation: $x^2 + (y + 6)^2 = 9$

42. $(x + 1)^2 + (y - 1)^2 = 13$