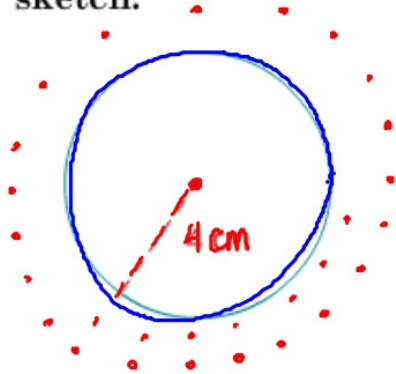


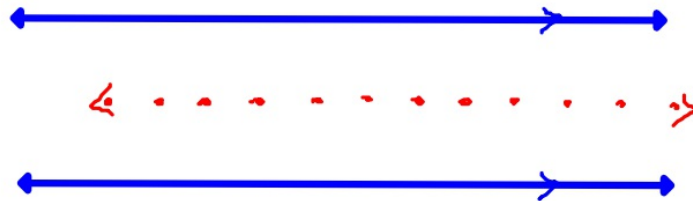
12.6 Review - Warm - up

1. What is the locus of points that are outside the circle and 2 cm from the circle? Draw a sketch.



A circle with
the radius
of 6 cm

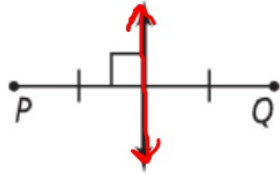
2. What is the locus of points in space that are equidistant from two parallel lines?



A parallel line that is
equidistant and between
the two lines

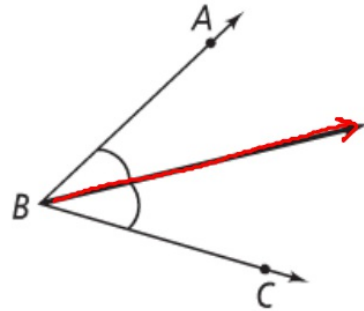
12.6 pg. 808 #7 - #21

7.



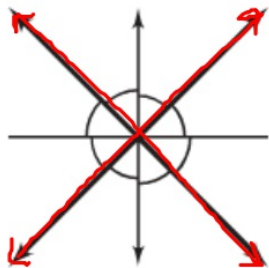
The locus is the perpendicular bisector of \overline{PQ} .

8.



The locus is the ray that bisects $\angle ABC$.

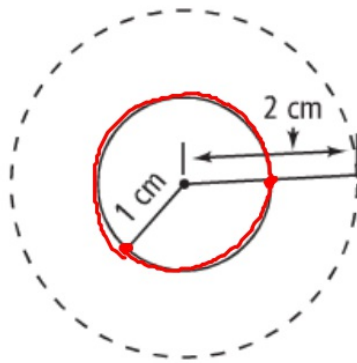
9.



The locus is the two lines that bisect the right angles.

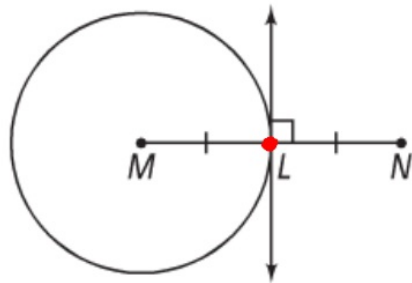
12.6 pg. 808 #7 - #21

10.



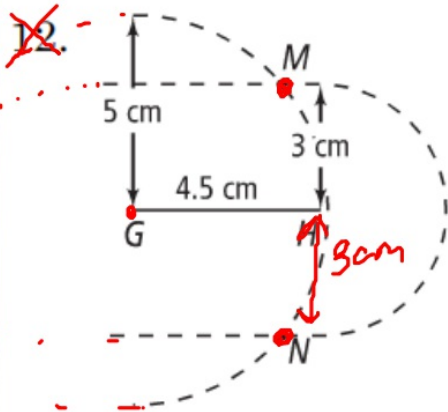
The locus is a circle, concentric with the given circle, with radius 1 cm.

11.

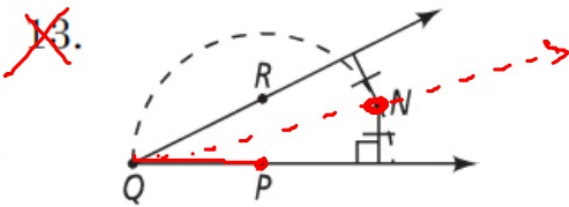


The locus is point L .

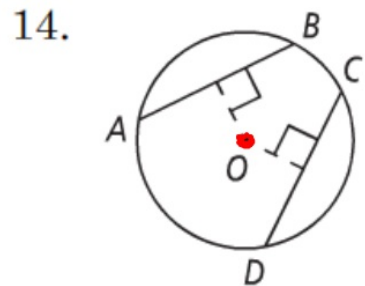
12.6 pg. 808 #7 - #21



The locus is points M and N .

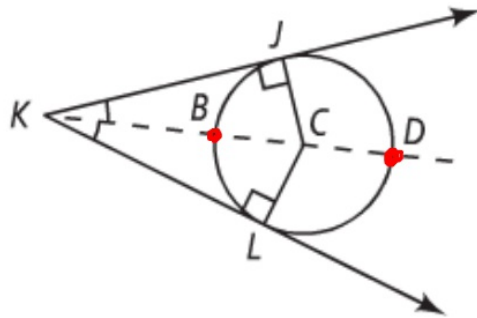


The locus is point N .



The locus is the center O .

15.



The locus is points B and D .

16. The locus is a sphere with center F and radius 3 cm.

~~17.~~ The locus is an endless cylinder with radius 4 cm and centerline \overline{DE} .

18. The locus is two planes, each parallel to plane M , and each 1 in. from M .

12.6 pg. 808 #7 - #21

~~19.~~ The locus is an endless cylinder with radius 5 mm and centerline \overline{PQ} , and a hemisphere of radius 5 mm centered at P , "capping off" the cylinder.

20. The locus is the set of all points in the interior of $\angle A$ and equidistant from the sides of $\angle A$. *Angle bisector!*

21. The locus is the set of all points 2 units from the origin.

center (0,0) r=2

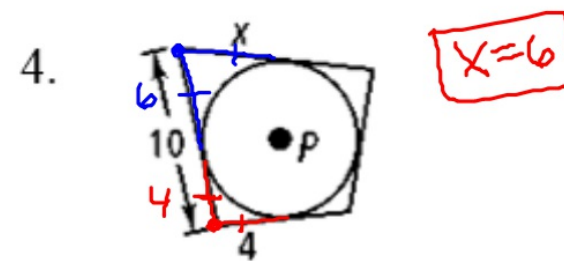
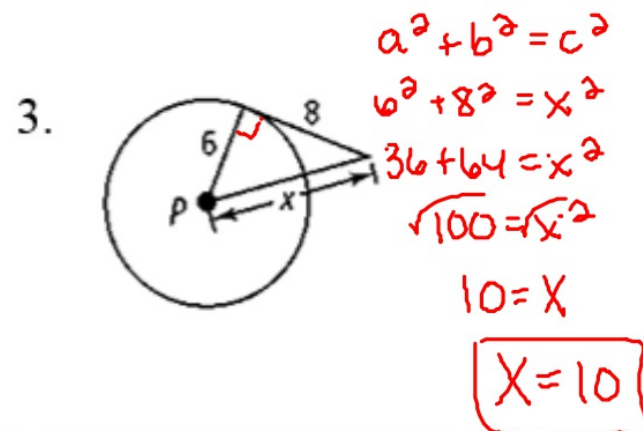
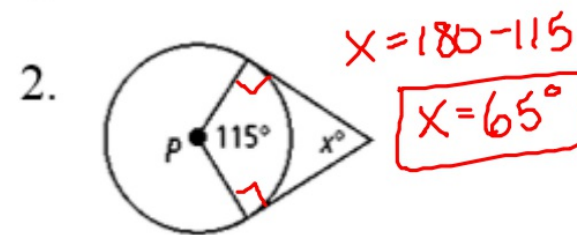
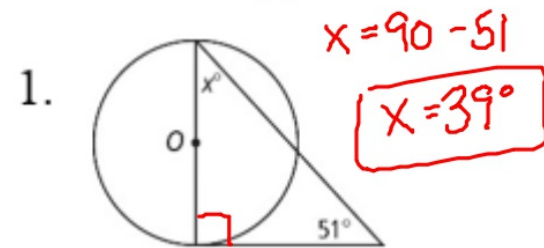
$$x^2 + y^2 = 4$$

Geometry B

CH 12 Review (E. Gervais)

12.1

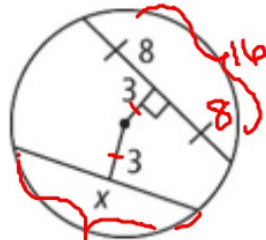
Lines that appear to be tangent are tangent. Find the value of x .



12.2

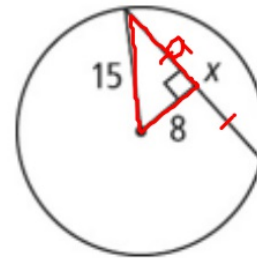
Find the value of x to the nearest tenth.

5.



$$x = 16$$

6.



$$\begin{aligned} a^2 + 8^2 &= 15^2 \\ a^2 + 64 &= 225 \\ -64 & \quad -64 \\ \hline \sqrt{a^2} &= \sqrt{161} \\ a &= 12.7 \end{aligned}$$

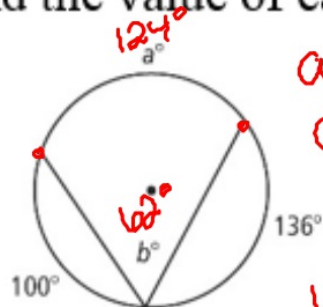
$$x = 2(12.7)$$

$$x = 25.4$$

12.3

Find the value of each variable.

7.



$$a = 360 - (100 + 136)$$

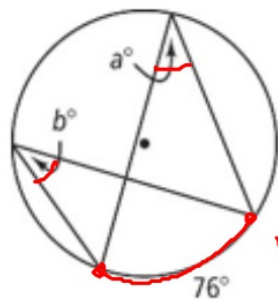
$$a = 360 - 236$$

$$a = 124^\circ$$

$$b = \frac{1}{2}(124)$$

$$b = 62^\circ$$

9.

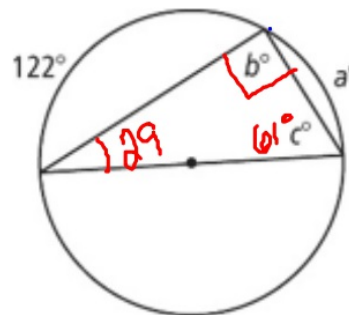


$$a = b = \frac{1}{2}(76)$$

$$a = 38^\circ$$

$$b = 38^\circ$$

8.



$$b = 90^\circ$$

$$c = \frac{1}{2}(122)$$

$$c = 61^\circ$$

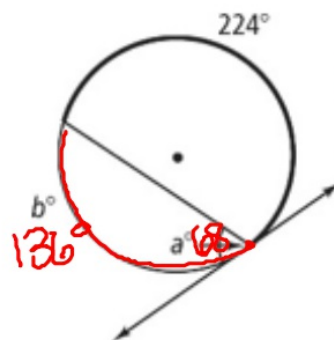
$$a = 2(61)$$

$$a = 122^\circ$$

$$b = 360 - 224$$

$$b = 136^\circ$$

10.



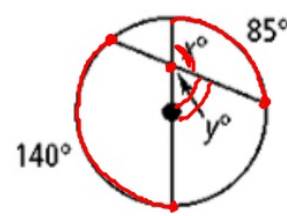
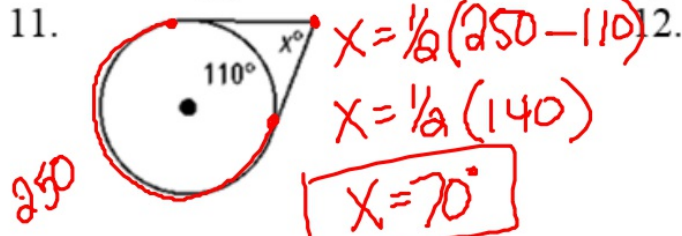
$$a = \frac{1}{2}(136)$$

$$a = 68^\circ$$

12.4

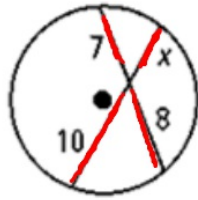
Lines that appear to be tangent, are tangent. Find the value of the variable.

11.

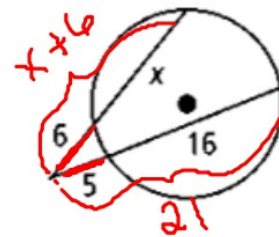


Find the value of each variable to help find the length of each chord, secant, or tangent line.

13.



14.



12.5

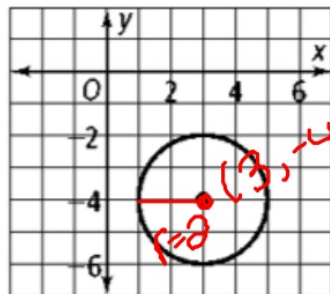
Write the standard equation of a circle given the information below.

15. Center $(0, -4)$; $r = 3$

$$x^2 + (y+4)^2 = 9$$

$$(x-h)^2 + (y-k)^2 = r^2$$

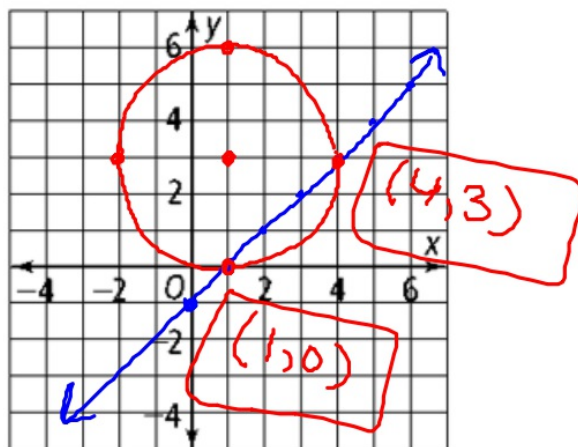
16.



$$(x-3)^2 + (y+4)^2 = 4$$

Graph the circle and the line and state the points of intersection.

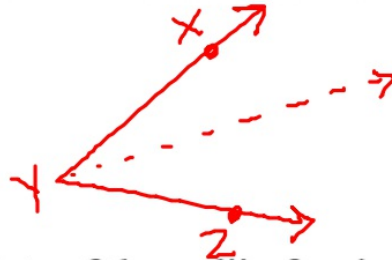
17. $(x-1)^2 + (y-3)^2 = 9$ ✓ $(1, 3)$ $r=3$
 $y = x - 1$ ✓



12.6

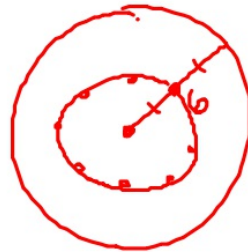
Sketch and describe each locus of points in a plane.

18. points on the interior of the angle XYZ and equidistant from the angles sides.



The angle bisector
of $\angle XYZ$

19. Midpoints of the radii of a circle that has the radius of 6.



A circle with
the radius
of 3.