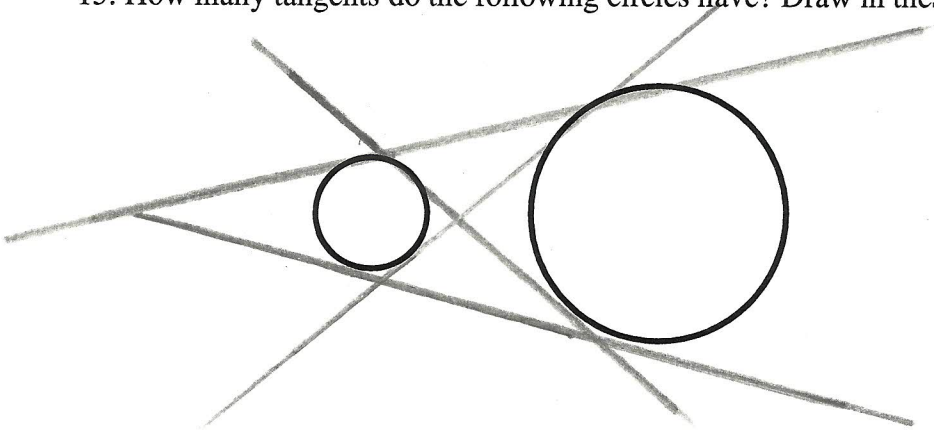
NAME: Key

GEOMETRY

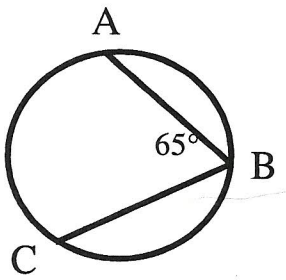
SEMESTER 2 FINAL EXAM REVIEW PART 2

15. How many tangents do the following circles have? Draw in these tangents.



10.5

16. Find the measure of arc AC.

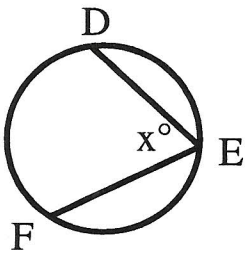


10.4

$\overset{\frown}{mAC} = 65 \cdot 2$

$\overset{\frown}{mAC} = 130°$

17. If the measure of arc DEF =216°, find the value of x.



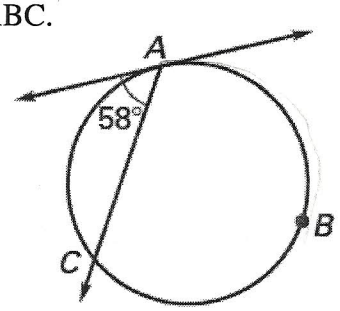
$\overset{\frown}{mDF} = 360 - 216$

$\overset{\frown}{mDF} = 144$

$x = \frac{144}{2}$

$x = 72°$

18. Find the measure of arc ABC.



$\overset{\frown}{mAC} = 58(2)$

$\overset{\frown}{mAC} = 116°$

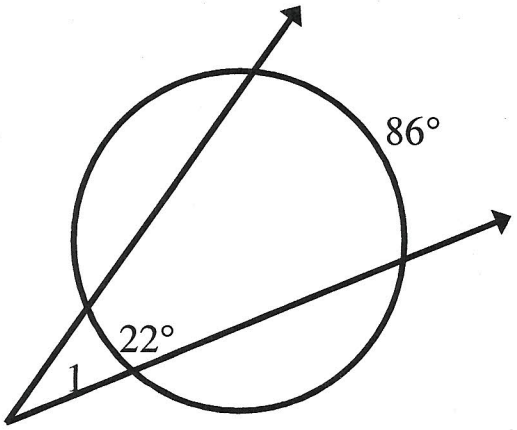
$\overset{\frown}{mABC} = 360 - \overset{\frown}{mAC}$

$\overset{\frown}{mABC} = 360° - 116°$

$\overset{\frown}{mABC} = 244°$

10.6

19. Find the measure of angle 1.



$m\angle 1 = \frac{1}{2}(86-22)$

$= \frac{1}{2}(64)$

$m\angle 1 = 32^\circ$

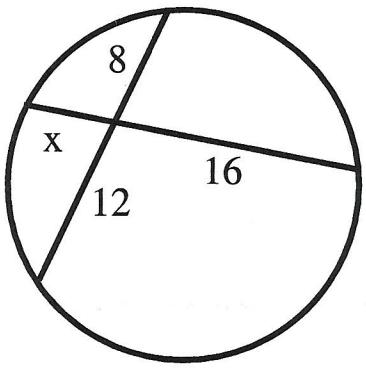
20. Find the value of x.

10.7

$x \cdot 16 = 8(12)$

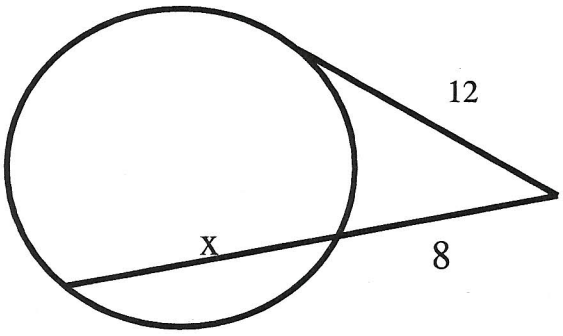
$16x = 96$

$x = 6$



21. Find the value of x.

10.7



$12^2 = 8(8+x)$

$144 = 64 + 8x$

$-64 \quad -64$

$80 = 8x$

$x = 10$

10.8

22. Write the standard form of the equation of a circle with center (4, -1) and radius 3.

h k r

$(x-4)^2 + (y+1)^2 = 9$

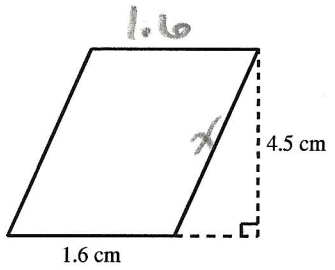
10.8

23. What is the center of a circle with an equation of $(x-2)^2 + (y+4)^2 = 64$?

$(h,k) = (2,-4)$

11.1

24. Find the area and the perimeter.

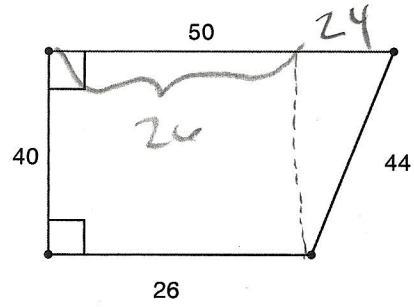


$A = 1.6(4.5)$

$A = 7.2\text{ cm}^2$

11.4

25. Find the area of the quadrilateral below.



$A_{\square}$

$26(40) = 1040$

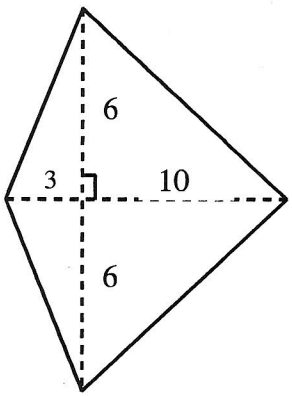
$A_{\triangle}$

$\frac{1}{2}(24)(40) = 480$

$A = 1040 + 480 = 1520\text{ units}^2$

11.2

26. Find the area of the quadrilateral.



$A = \frac{1}{2}d_1 d_2$

$d_1 = 6+6 = 12$

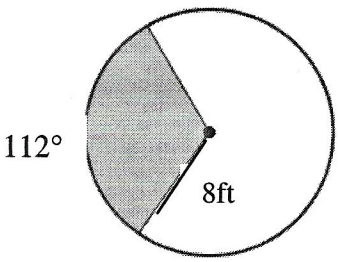
$d_2 = 3+10 = 13$

$A = \frac{1}{2}(12)(13)$

$A = 78\text{ units}^2$

11.3

27. Find the area of the sector shown in the diagram.



$A = \frac{112}{360} \cdot \pi(8)^2$

$A = 62.52\text{ ft}^2$