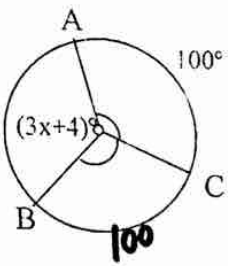


Find x.

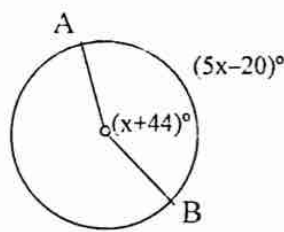


$$200 + 3x + 4 = 360$$

$$204 + 3x = 360$$

$$x = 52$$

Find x.

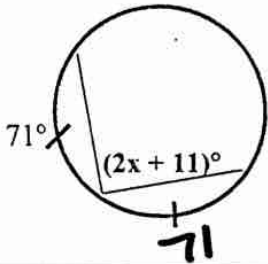


$$5x - 20 = x + 44$$

$$4x = 64$$

$$x = 16$$

Find x.



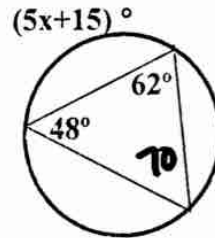
$$71 + 71 + 2(2x + 11)$$

$$142 + 4x + 22 = 360$$

$$164 + 4x = 360$$

$$x = 49$$

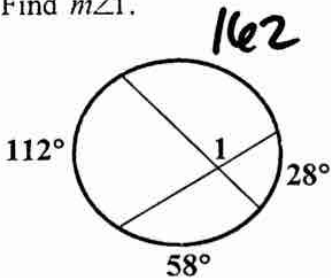
Find x.



$$5x + 15 = 140$$

$$x = 25$$

Find $m\angle 1$.

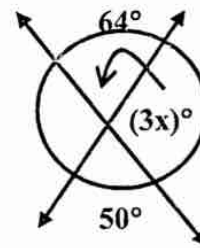


$$162$$

$$\frac{162 + 58}{2}$$

$$110$$

Find x.



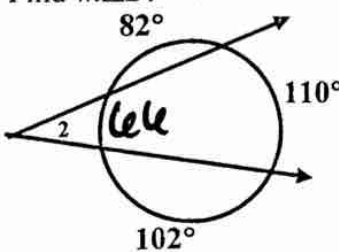
$$\frac{64 + 50}{2} = 3x$$

$$64 + 50 = 6x$$

$$114 = 6x$$

$$x = 19$$

Find $m\angle 2$.

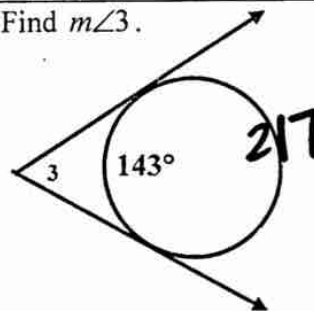


$$82$$

$$\frac{110 - 102}{2} =$$

$$22$$

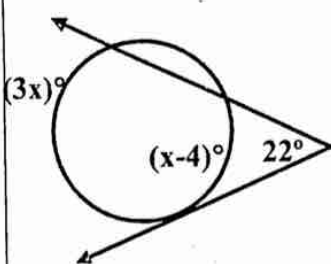
Find $m\angle 3$.



$$\frac{217 - 143}{2}$$

$$x = 37$$

Find x.



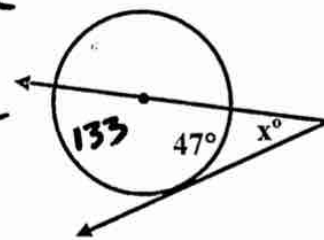
$$\frac{3x - (x - 4)}{2} = 22$$

$$3x - x + 4 = 22$$

$$2x + 4 = 18$$

$$x = 7$$

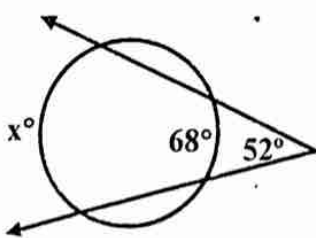
Find x.



$$\frac{133 - 47}{2}$$

$$43$$

Find x.

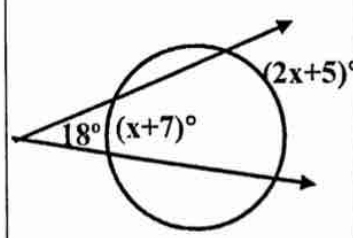


$$\frac{x - 68}{2} = 52$$

$$x - 68 = 104$$

$$x = 172$$

Find x.



$$\frac{2x + 5 - (x + 7)}{2} = 18$$

$$2x + 5 - x - 7 = 36$$

$$x - 2 = 36$$

$$x = 38$$

Geometry

SHOW WORK

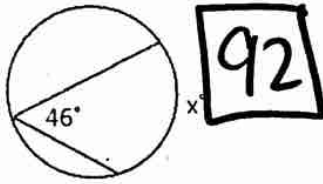
Name _____

12-3 worksheet

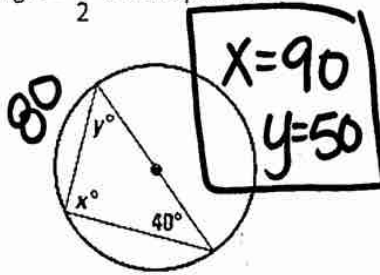
Inscribed angle = $\frac{1}{2}$ · intercepted arc

Find the value of each variable.

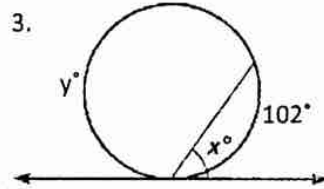
1.



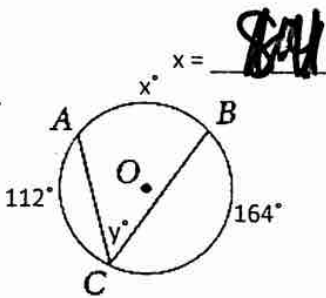
2.



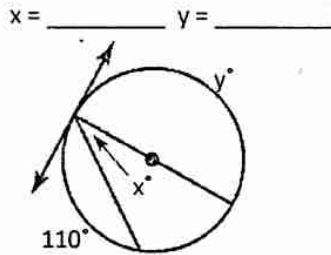
3.



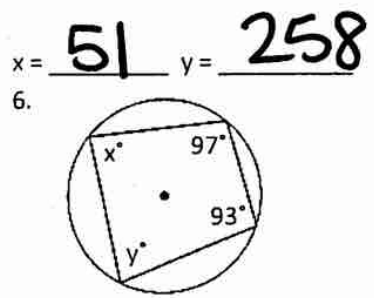
4.



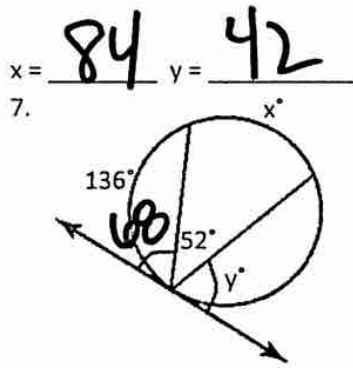
5.



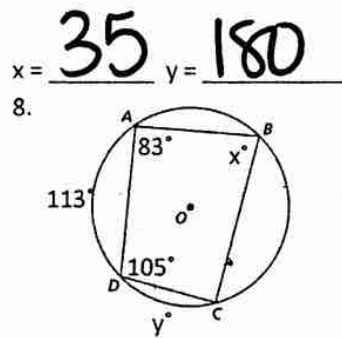
6.



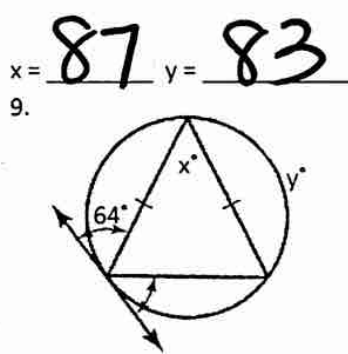
7.



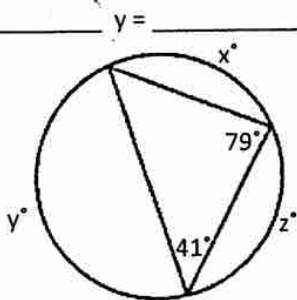
8.



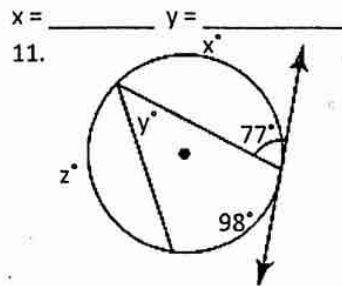
9.



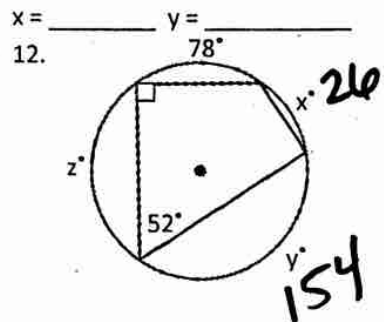
10.



11.



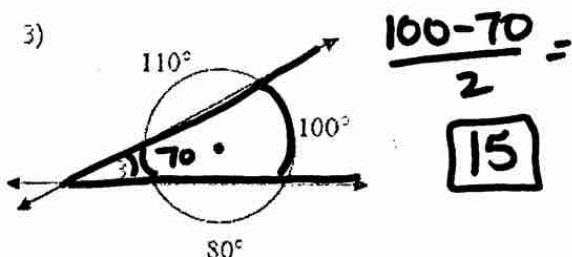
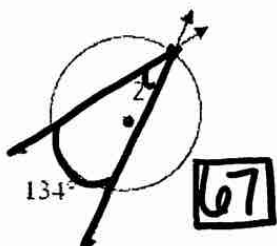
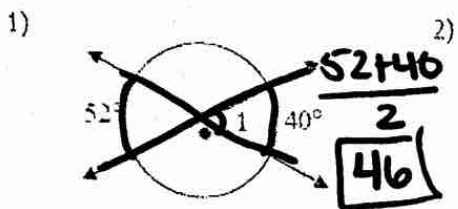
12.



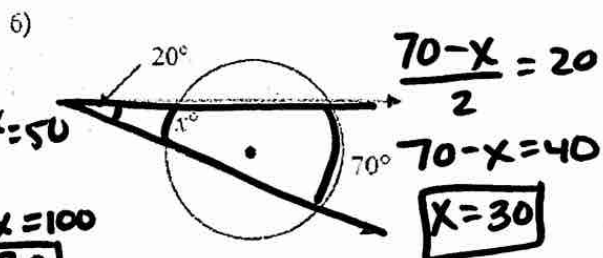
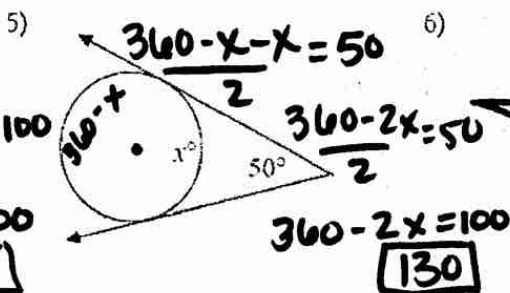
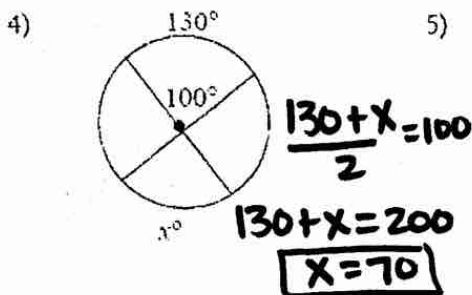
$x = 82$ $y = 158$ $z = 120$ $x = 108$ $y = 49$ $z = 154$ $x = 26$ $y = 154$ $z = 102$

Homework

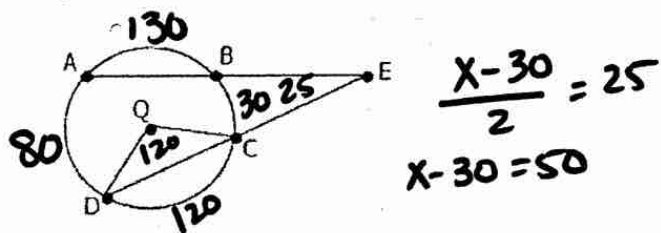
Find the measure of each numbered angle.



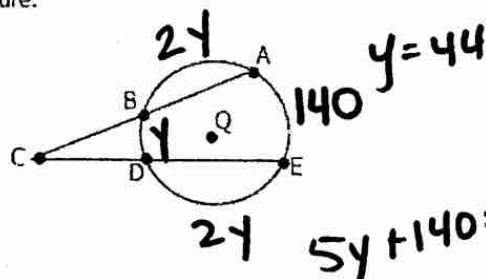
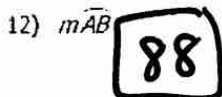
Find the value of x.



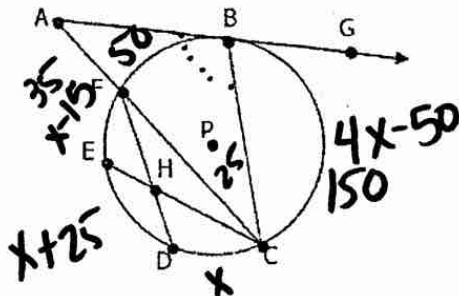
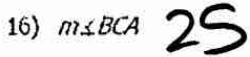
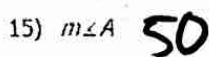
Assume that lines that appear to be tangents are tangents. In $\odot Q$, $m\angle CQD = 120^\circ$, $m\widehat{BC} = 30^\circ$, and $m\angle BEC = 25^\circ$. Find each measure.



In $\odot Q$, $m\widehat{AE} = 140^\circ$, $m\widehat{BD} = y^\circ$, $m\widehat{AB} = 2y^\circ$, and $m\widehat{DE} = 2y^\circ$. Find each measure.



In $\odot P$, $m\widehat{BC} = 4x - 50$, $m\widehat{DE} = x + 25$, $m\widehat{EF} = x - 15$, $m\widehat{FB} = 50$, and $m\widehat{CD} = x$. Find each measure.



47

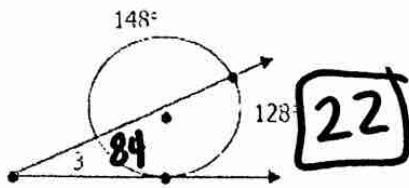
$$360 = x + 25 + x - 15 + 50 + 4x - 50 + x$$

$$360 = 7x + 10$$

$$x = 50$$

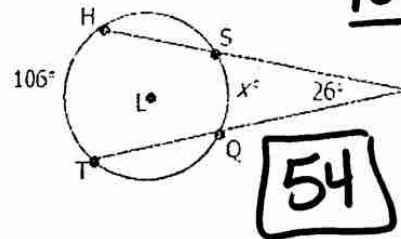
Use the diagram to find the missing information.

21) Find $m\angle 3$



22

22) Find the value of x .

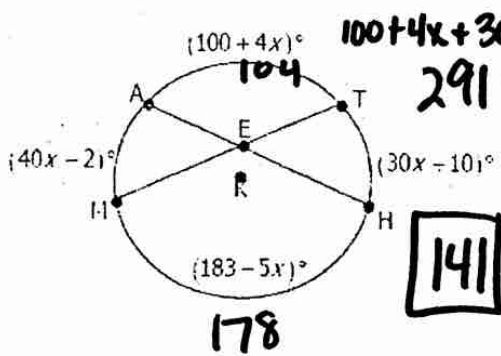


$$\frac{106 - x}{2} = 26$$

$$106 - x = 52$$

54

23) Find the value of x and $m\angle AET$.



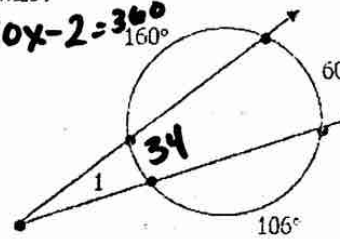
$$100 + 4x + 30x + 10 + 183 - 5x + 40x - 2 = 360$$

$$291 + 69x = 360$$

$$x = 1$$

141

24) Find $m\angle 1$.

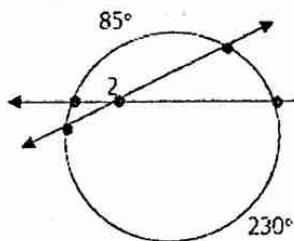


$$\frac{60 - 34}{2} = x$$

$$x = 13$$

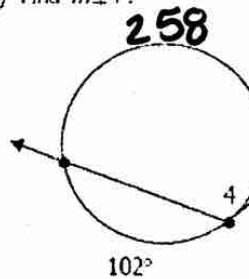
X=13

25) Find $m\angle 2$.



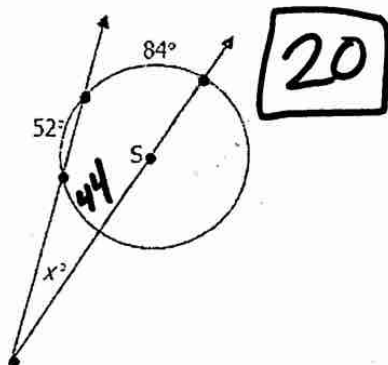
$$\frac{85 + 230}{2} = 157.5$$

26) Find $m\angle 4$.



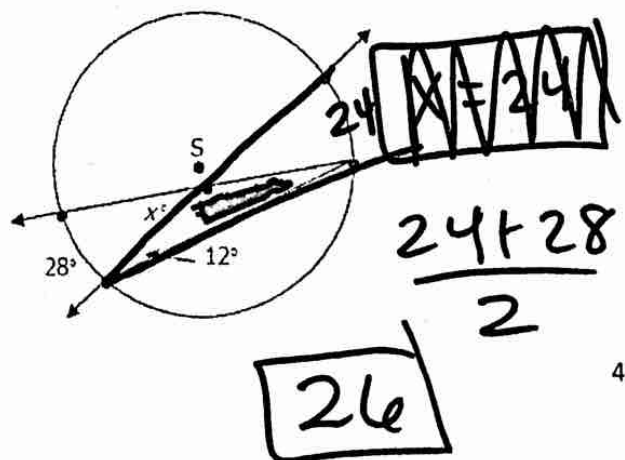
129

27) Find the value of x .



20

28) Find the value of x .



$$\frac{24 + 28}{2} = x$$

26