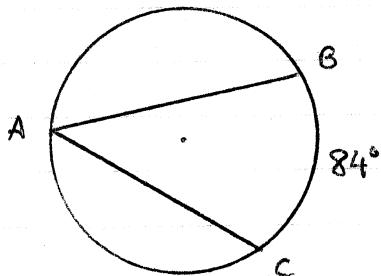


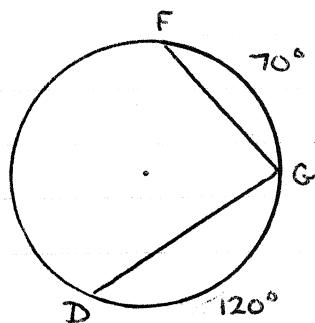
Geometry, Ch 10-4 Exer., pg 666 #3-8, 10-15, 29

Find the indicated measure.

3. $m\angle A$



4. $m\angle G$



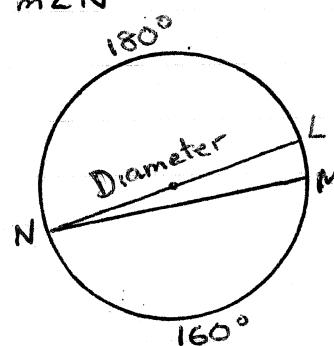
$$2m\angle A = 84^\circ$$

$$m\angle A = 42^\circ$$

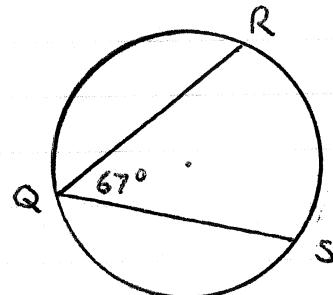
$$\widehat{FD} + 70 + 120 = 360$$

$$\widehat{FD} = 170^\circ$$

5. $m\angle N$



6. $m\widehat{RS}$



$$180 + 160 + \widehat{LM} = 360^\circ$$

$$\widehat{LM} = 20^\circ$$

$$2m\angle Q = \widehat{RS}$$

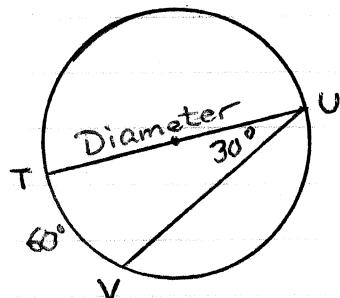
$$2(67) = \widehat{RS}$$

$$134^\circ = \widehat{RS}$$

$$2m\angle N = 20^\circ$$

$$m\angle N = 10^\circ$$

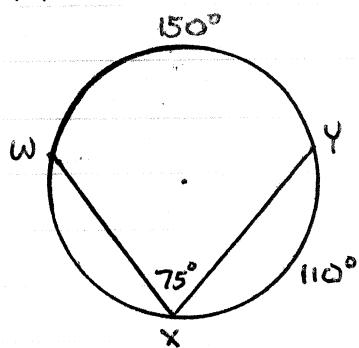
7. $m\widehat{VU}$



$$60^\circ + \widehat{VU} = 180^\circ$$

$$\widehat{VU} = 120^\circ$$

8. $m\widehat{WX}$

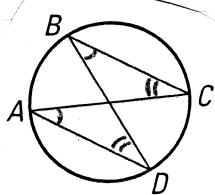


$$\widehat{WX} + 150 + 110 = 360$$

$$\widehat{WX} = 100^\circ$$

Name two pairs of congruent angles.

10.



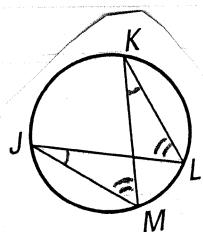
$$\angle CBD \cong \angle CAD$$

$$\angle ACB \cong \angle ADB$$

[Also $\angle BAC \cong \angle BDC$... others?]

Which angles intercept the same, or congruent, arcs of the circle?

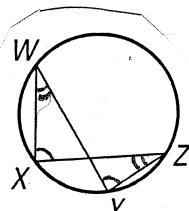
11.



$$\angle LKM \cong \angle LLJ$$

$$\angle JMK \cong \angle JLK$$

12.



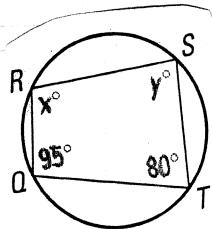
$$\angle WXZ \cong \angle WYZ$$

$$\angle XWY \cong \angle XZY$$

Opposite angles of an inscribed quadrilateral are supplementary

Find the value of the variables.

13.



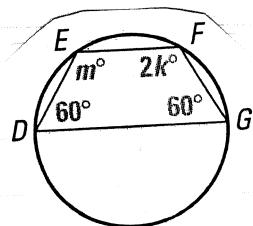
$$x + 80 = 180$$

$$x = 100$$

$$y + 95 = 180$$

$$y = 85$$

14.



$$2k + 60 = 180$$

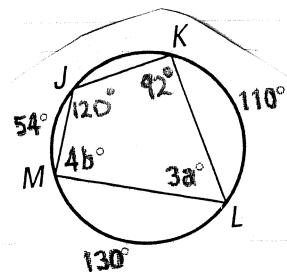
$$2k = 120$$

$$k = 60$$

$$m + 60 = 180$$

$$m = 120$$

15.



$$2m\angle K = 54 + 130$$

$$2m\angle K = 184$$

$$m\angle K = 92^\circ$$

$$2m\angle J = 130 + 110$$

$$2m\angle J = 240$$

$$m\angle J = 120^\circ$$

$$4b + 92 = 180$$

$$4b = 88$$

$$b = 22$$

$$120 + 3a = 180$$

$$3a = 60$$

$$a = 20$$

29. A right triangle is inscribed in a circle and the radius is given. Explain how to find the length of the hypotenuse.

The right angle of the right triangle is 90° . Its intercepted arc would be 180° , or a semi-circle. The chord of a semi-circle is the circle's diameter. So... double the given radius, and you have the diameter; and if you know diameter, you know hypotenuse.