

4-10A The Biggest Circle Puzzle

You are given the following information:

O is the center of the circle.

\overline{AB} , \overline{CD} , and \overline{EF} are diameters.

$$m\widehat{GB} = 26$$

$$m\angle AOC = 30$$

$$m\angle OAH = 50$$

$$m\angle AHF = 65$$

$$m\angle IGA = 24$$

$$IF = 10.5$$

$$PI = 4.5$$

$$PC = 3.4$$

$$CM = 10$$

$$HM = 7.5$$

Label the circle on the accompanying worksheet with the given information, then find the measure of each angle, arc, and segment below. Write the measure of each angle, arc, and segment as you find it on the diagram and use tick marks to designate congruent angles. Check your work as you proceed. Do not make any assumptions. Record your answers below. (Round to the nearest whole number where necessary.)

1. $m\widehat{CB} =$ _____

2. $m\angle AJC =$ _____

3. $m\widehat{CG} =$ _____

4. $m\angle FOB =$ _____

5. $m\widehat{FG} =$ _____

6. $m\angle FPC =$ _____

7. $m\angle FIG =$ _____

8. $m\widehat{FI} =$ _____

9. $m\angle IKF =$ _____

10. $m\widehat{AE} =$ _____

11. $m\angle ELD =$ _____

12. $m\overline{CD} \approx$ _____

13. $m\angle COF =$ _____

14. $m\overline{FM} \approx$ _____

15. $m\angle FNB =$ _____

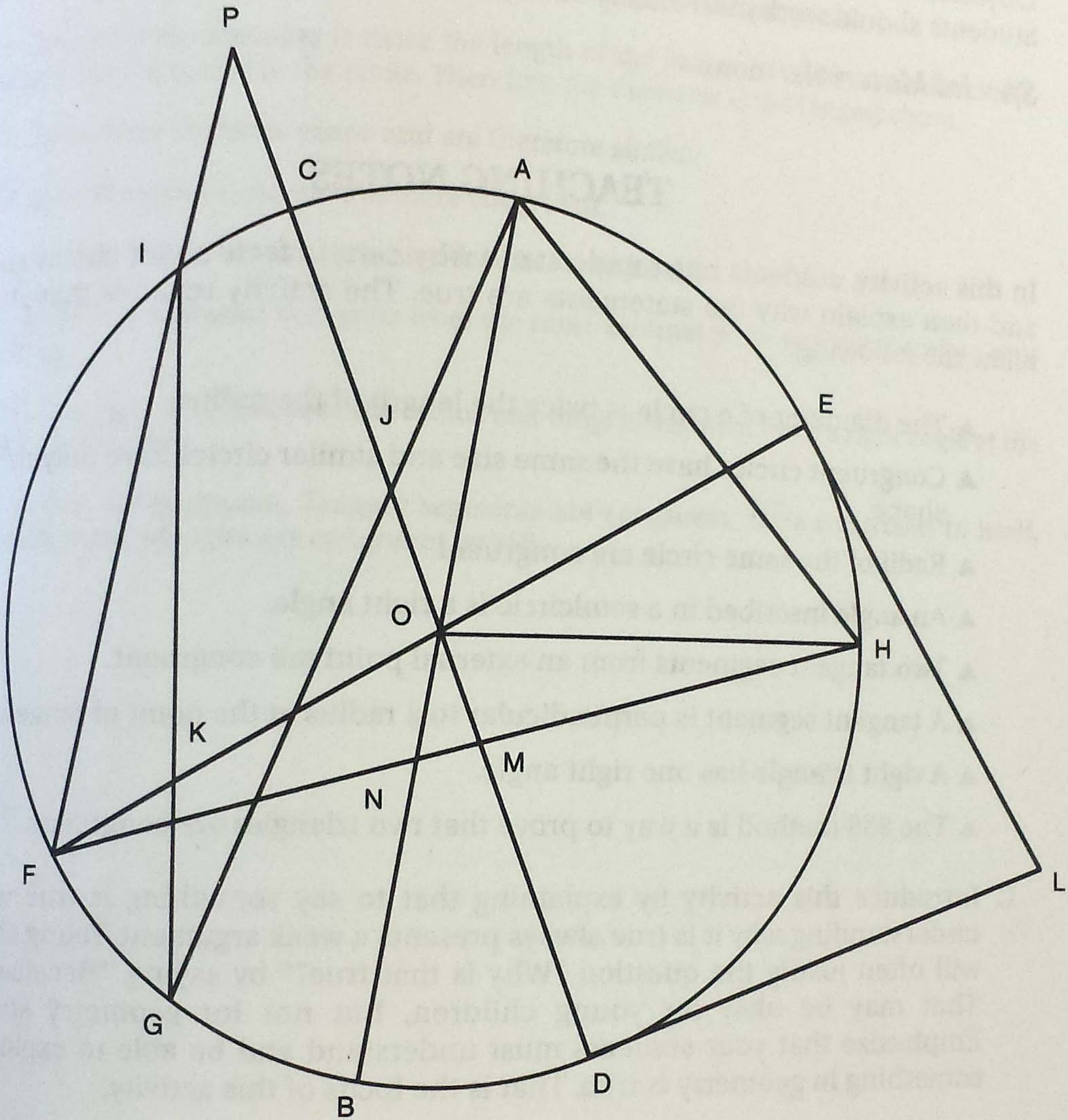
Name _____

Date _____

Section _____

4-10B The Biggest Circle Puzzle

Using the information you were given and your knowledge of circles, fill in the measures of the angles, arcs, and segments on the diagram below.



\overline{LD} and \overline{LE} are tangent to the circle.