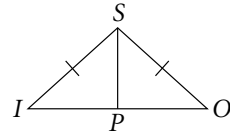# 4-2 • Guided Problem Solving

GPS **Student Page 210, Exercise 34**

What can you prove about $\triangle ISP$ and $\triangle OSP$ given the information in the diagram and the fact that $\overline{SP}$ is the bisector of $\angle ISO$?

Read and Understand

1. What information is given in the diagram? _____

2. What are you asked to identify? _____

Plan and Solve

3. What does the information given in the diagram
   tell you about $\overline{IS}$ and $\overline{OS}$? Justify your answer. _____

   _____

4. What does the fact that $\overline{SP}$ is the bisector
   of $\angle ISO$ tell you about $\angle ISP$ and $\angle OSP$? Explain. _____

   _____

5. What side is common to both $\triangle ISP$ and $\triangle OSP$? _____

6. What can you conclude about $\triangle ISP$ and $\angle OSP$? Justify your answer. _____

   _____

Look Back and Check

7. Did you assume that points I, P, and O were collinear? Does it matter
   whether they are or not? Explain.

   _____

Solve Another Problem

8. From the information given, does it follow that $\overline{IP} \cong \overline{OP}$? Why or why not?

   _____

   _____