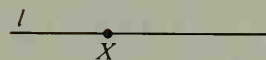


Exercises 11–13 will analyze the following problem.

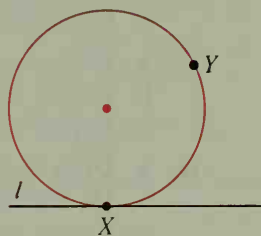
•Y

Given: Line  $l$ ; points  $X$  and  $Y$

Construct: A circle through  $Y$  and tangent to  $l$  at  $X$



If the problem had been solved, we would have a diagram something like the one shown.



11. Where does the center of the circle lie with respect to line  $l$  and point  $X$ ?

12. Where does the center of the circle lie with respect to  $\overline{XY}$ ?

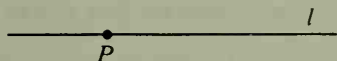
13. Explain how to carry out the construction of the circle.

## Written Exercises

Draw a figure roughly like the one shown, but larger. Do the indicated construction clearly enough so that your method can be understood easily.

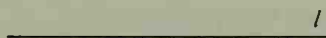
A

1. The perpendicular to  $l$  at  $P$



2. The perpendicular to  $l$  from  $S$

•S

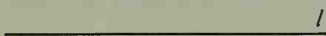


3. The perpendicular bisector of  $\overline{JK}$

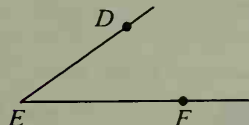


4. The parallel to  $l$  through  $T$

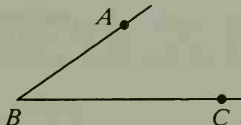
•T



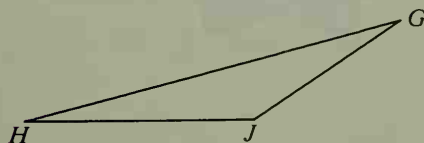
5. The parallel to  $\overleftrightarrow{ED}$  through  $F$



6. The perpendicular to  $\overleftrightarrow{BA}$  at  $A$



7. The perpendicular to  $\overleftrightarrow{HJ}$  from  $G$



8. A complement of  $\angle KMN$

