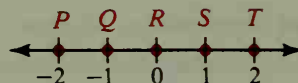
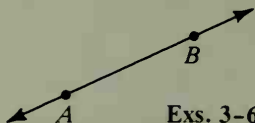
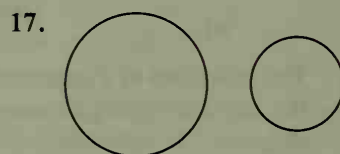
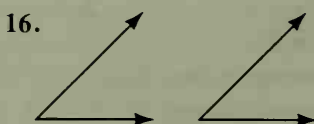
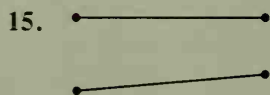


## Classroom Exercises

- Does the symbol represent a line, segment, ray, or length?  
 a.  $\overline{PQ}$       b.  $\overrightarrow{PQ}$       c.  $\overleftrightarrow{PQ}$       d.  $PQ$
- How many endpoints does a segment have? a ray? a line?
- Is  $\overline{AB}$  the same as  $\overline{BA}$ ?
- Is  $\overrightarrow{AB}$  the same as  $\overrightarrow{BA}$ ?
- Is  $\overleftrightarrow{AB}$  the same as  $\overleftrightarrow{BA}$ ?
- Is  $AB$  the same as  $BA$ ?
- What is the coordinate of  $\overset{-2}{P}$ ? of  $\overset{0}{R}$ ?
- Name the point with coordinate 2.
- Find each distance: a.  $RS$     b.  $RQ$     c.  $PT$
- Name three segments congruent to  $\overline{PQ}$ .
- Name the ray opposite to  $\overrightarrow{SP}$ .
- Name the midpoint of  $\overline{PT}$ .
- a. What number is halfway between 1 and 2?  
 b. What is the coordinate of the midpoint of  $\overline{ST}$ ?
- a. Could you list all the numbers between 1 and 2?  
 b. Is there a point on the number line for every number between 1 and 2?  
 c. Is there any limit to the number of points between  $S$  and  $T$ ?



State whether the figures *appear* to be congruent (that is, appear to have the same size and shape).



- Draw two points  $P$  and  $Q$  on a sheet of paper. Fold the paper so that fold line  $f$  contains both  $P$  and  $Q$ . Unfold the paper. Now fold so that  $P$  falls on  $Q$ . Call the second fold  $g$ . Lay the paper flat and label the intersection of  $f$  and  $g$  as point  $X$ . How are points  $P$ ,  $Q$ , and  $X$  related? Explain.
- If  $AB = BC$ , must point  $B$  be the midpoint of  $\overline{AC}$ ? Explain.

The given numbers are the coordinates of two points on a number line. State the distance between the points.

23.  $-2$  and  $6$

24.  $-2$  and  $-6$

25.  $2$  and  $-6$

26.  $7$  and  $-1$