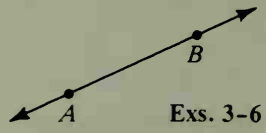
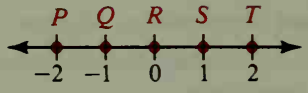
## Classroom Exercises

1. Does the symbol represent a line, segment, ray, or length?
   **a.** $\overline{PQ}$ **b.** $\overrightarrow{PQ}$ **c.** $\overleftrightarrow{PQ}$ **d.** $PQ$
2. How many endpoints does a segment have? a ray? a line?
3. Is $\overline{AB}$ the same as $\overline{BA}$?
4. Is $\overrightarrow{AB}$ the same as $\overrightarrow{BA}$?
5. Is $\overleftrightarrow{AB}$ the same as $\overleftrightarrow{BA}$?
6. Is $AB$ the same as $BA$?



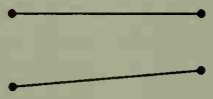
Exs. 3-6

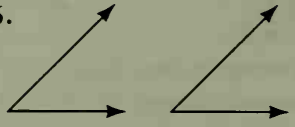
7. What is the coordinate of $P$? of $R$?
8. Name the point with coordinate 2.
9. Find each distance: **a.** $RS$ **b.** $RQ$ **c.** $PT$
10. Name three segments congruent to $\overline{PQ}$.
11. Name the ray opposite to $\overrightarrow{SP}$.
12. Name the midpoint of $\overline{PT}$.
13. **a.** What number is halfway between 1 and 2?
    **b.** What is the coordinate of the midpoint of $\overline{ST}$?
14. **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 $T$?

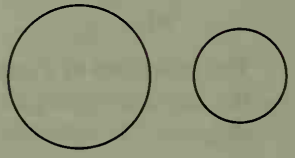


Exs. 7-14

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

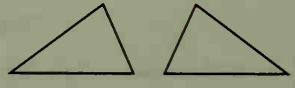
15. 

16. 

17. 

18. 

19. 

20. 

21. 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.
22. 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 $-1$