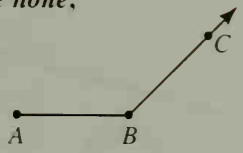
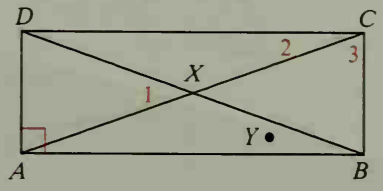
Chapter Test

State how many points meet the requirements. For each answer write *none*, *one*, or *an unlimited number*.



1. Equidistant from points A and B
2. On $\overrightarrow{BC}$ and equidistant from points A and B

Given the diagram, tell whether you can reach the conclusion shown.



Exs. 3–15

3. $\angle AXC$ is a straight angle.
4. Point Y lies in the interior of $\angle 3$.
5. $\angle ADC$ is a right angle.
6. X is the midpoint of $\overline{AC}$.
7. Point Y lies between points A and B.
8. Name three collinear points.
9. Name the intersection of $\overrightarrow{CX}$ and $\overleftrightarrow{AB}$.
10. Which postulate justifies the statement $AX + XC = AC$?
11. If $\overline{AC}$ bisects $\overline{BD}$, name two congruent segments.
12. Name the vertex and sides of $\angle 1$.
13. Name a right angle.
14. If $m\angle 1 = 46$, find $m\angle DXC$ and $m\angle CXB$.
15. If $m\angle DAX = 70$, find the measure of $\angle XAB$.

Exercises 16–20 refer to a number line that is not pictured here. Point A has coordinate 2 and point B has coordinate 5.

16. What is the length of $\overline{AB}$?
17. What is the coordinate of the midpoint of $\overline{AB}$?
18. If A is the midpoint of $\overline{PB}$, what is the coordinate of P?
19. What is the coordinate of a point that is on $\overrightarrow{AB}$ and is 4 units from B?
20. What is the coordinate of a point that is 4 units from B, but is not on $\overrightarrow{AB}$?
21. Is it possible for a line and a point to be noncoplanar?
22. Is it possible for the intersection of two planes to consist of a segment?
23. Is a postulate an important proved statement, or is it a basic assumption?
24. Complete the statement of the postulate: If two points are in a plane, then ___?___.