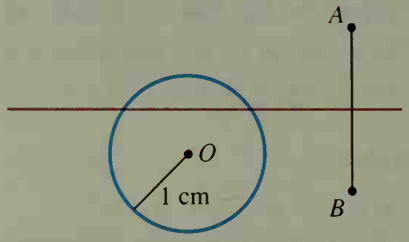
Chapter Review

In Exercises 1–4 answer on the basis of what appears to be true.



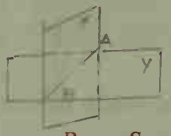
1–1

1. How many blue points are 1 cm from point O?
2. How many red points are 1 cm from O?
3. How many red points are 2 cm from O?
4. Each red point is said to be ___ from points A and B.

Sketch and label the figures described.

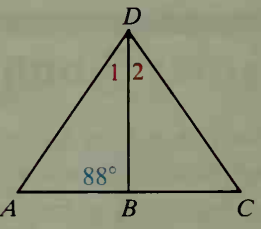
1–2

5. Points A, B, C, and D are coplanar, but A, B, and C are the only three of those points that are collinear.
6. Line l intersects plane X in point P.
7. Plane M contains intersecting lines j and k.
8. Planes X and Y intersect in $\overleftrightarrow{AB}$.



1–3

9. Name a point on $\overrightarrow{ST}$ that is not on $\overline{ST}$.
10. Complete: RS = ___ and ST = ___
11. Complete: $\overline{RS}$ and $\overline{ST}$ are called ___ segments.
12. If U is the midpoint of $\overline{TV}$, find the value of x.



1–4

13. Name three angles that have vertex D. Which angles with vertex D are adjacent angles?
14. **a.** $m\angle CBD$ = ___
    b. Name the postulate that justifies your answer in part (a).
15. What kind of angle is $\angle CBD$?
16. $\overrightarrow{DB}$ bisects $\angle ADC$, $m\angle 1 = 5x - 3$, and $m\angle 2 = x + 25$. Find the value of x.

Classify each statement as true or false.

1–5

17. It is possible to locate three points in such a position that an unlimited number of planes contain all three points.
18. It is possible for two intersecting lines to be noncoplanar.
19. Through any three points there is at least one line.
20. If points A and B lie in plane P, then so does any point of $\overrightarrow{AB}$.