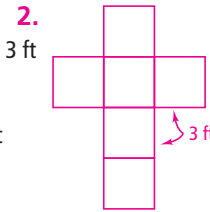
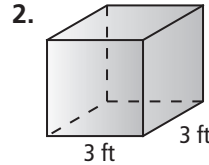
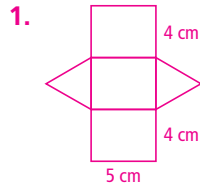
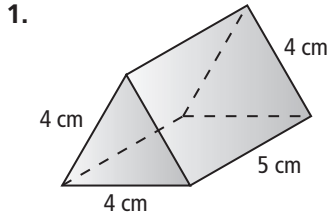


Extra Practice

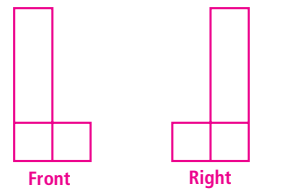
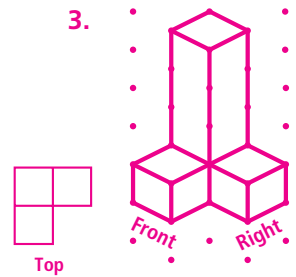
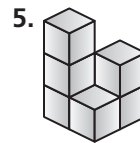
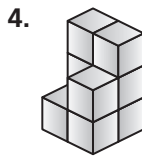
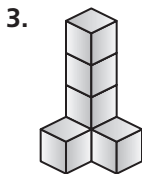
Chapter 1

Lesson 1-1

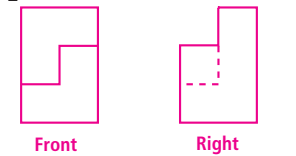
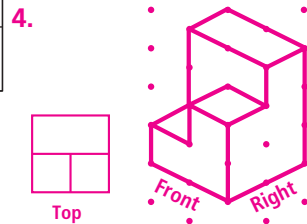
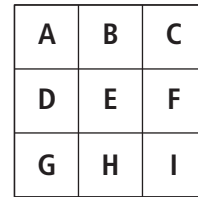
Draw a net for each figure. Label the net with its dimensions.



Make an isometric drawing of each cube structure on isometric dot paper. Then make an orthographic drawing.



6. You can cut four of the lettered squares from the figure at the right and fold the remaining net to make a box that is open at one end. Write the letters of the squares you could remove to do this. List all the possibilities. **A, C, G, I; D, G, F, I; A, B, G, H; A, D, C, F; B, C, H, I; C, F, D, G; A, B, H, I**



Lesson 1-2

Write *true* or *false*.

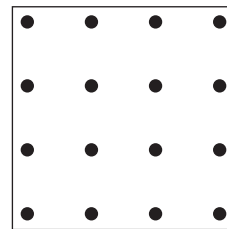
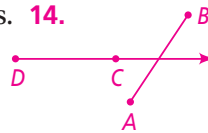
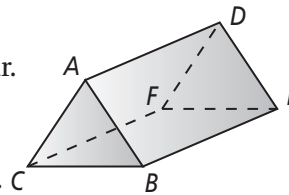
7. A, D, F are coplanar. **true** 8. \overleftrightarrow{AC} and \overleftrightarrow{FE} are coplanar. **false**

9. A, B, E are coplanar. **true** 10. D, A, B, E are coplanar. **true**

11. A and C are collinear. **true** 12. $D, E,$ and B are collinear. **false**

13. How many sets of four collinear points are there in a 4-by-4 geoboard as pictured at the right? **10 sets**

14. \overline{AB} and \overline{CD} do not intersect but \overline{DC} intersects \overline{AB} in one point. Make a sketch that shows this. **14.**

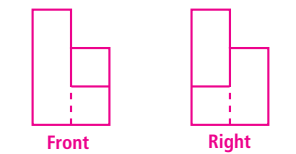
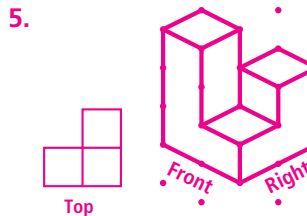
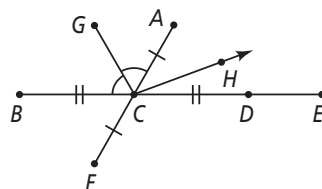


Lessons 1-3 and 1-4

Use the figure at the right for Exercises 15–20.

15. If $BC = 12$ and $CE = 15$, then $BE = \square$. **27**

16. \square is the angle bisector of \square . **$\overline{CG}, \angle BCA$**



Extra Practice (continued)

Chapter 1

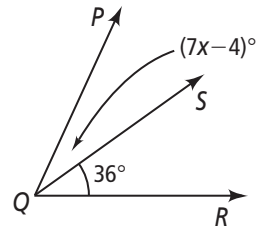
17. **Algebra** $BC = 3x + 2$ and $CD = 5x - 10$. Solve for x . **6**

18. **Algebra** If $AC = 5x - 16$ and $CF = 2x - 4$, then $AF = \square$. **8**

19. $m\angle BCG = 60$, $m\angle GCA = \square$, and $m\angle BCA = \square$. **60, 120**

20. $m\angle ACD = 60$ and $m\angle DCH = 20$. Find $m\angle HCA$. **40**

21. **Algebra** In the figure at the right, $m\angle PQR = 4x + 47$.
Find $m\angle PQS$. **31**



22. **Algebra** Points A , B , and C are collinear with B between A and C . $AB = 4x - 1$, $BC = 2x + 1$, and $AC = 8x - 4$.
Find AB , BC , and AC . **7, 5, 12**

Lesson 1-5

Name the angle or angles in the diagram described by each of the following.

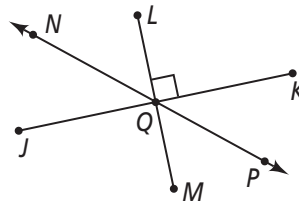
23. supplementary to $\angle NQK$ **$\angle JQN, \angle KQP$**

24. vertical to $\angle PQM$ **$\angle LQN$**

25. congruent to $\angle NQJ$ **$\angle KQP$**

26. adjacent and congruent to $\angle JQM$ **$\angle MQK, \angle JQL$**

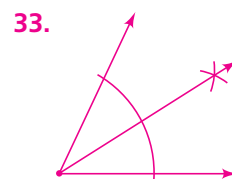
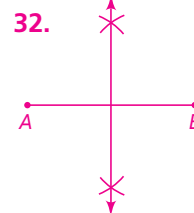
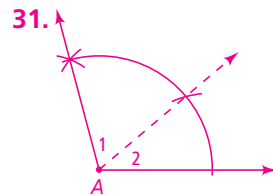
27. complimentary to $\angle KQP$ **$\angle PQM, \angle LQN$**



28. $\angle XYZ$ and $\angle XYW$ are complementary angles. $m\angle XYZ = 3x + 9$
and $m\angle XYW = 5x + 9$. What are $m\angle XYZ$ and $m\angle XYW$?
36, 54

29. $\angle ABC$ and $\angle DEF$ are supplementary angles. The measure of $\angle DEF$ is twenty degrees less than three times the measure of $\angle ABC$. What are $m\angle ABC$ and $m\angle DEF$? **50, 130**

30. \overrightarrow{SQ} bisects $\angle RST$. $m\angle QST = 2x + 18$ and $m\angle RST = 6x - 2$.
What is $m\angle RSQ$? **56**



Lesson 1-6

For Exercises 31–34, draw a diagram similar to the given one. Then do the construction. Check your work with a ruler or a protractor.

31. Construct $\angle A$ so that $m\angle A = m\angle 1 + m\angle 2$.



32. Construct the perpendicular bisector of \overline{AB} .



33. Construct the angle bisector of $\angle 1$.



34. Construct \overline{FG} so that $FG = AB + CD$.

Extra Practice (continued)

Chapter 1

Lesson 1-7

Find (a) the distance between the points to the nearest tenth.

(b) the coordinates of the midpoint of the segments with the given endpoints.

35. $A(2, 1), B(3, 0)$ **1.4; $(\frac{5}{2}, \frac{1}{2})$**

36. $R(5, 2), S(-2, 4)$ **7.3; $(\frac{3}{2}, 3)$**

37. $Q(-7, -4), T(6, 10)$ **19.1; $(-\frac{1}{2}, 3)$**

38. $C(-8, -1), D(-5, -11)$ **10.4; $(-\frac{13}{2}, -6)$**

39. A map of a city and suburbs shows an airport located at $A(25, 11)$. An ambulance is on a straight expressway headed from the airport to Grant Hospital at $G(1, 1)$. The ambulance gets a flat tire at the midpoint M of \overline{AG} . As a result, the ambulance crew calls for helicopter assistance.

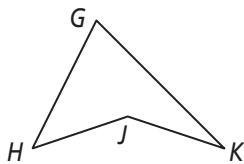
a. What are the coordinates of point M ? **(13, 6)**

b. How far does the helicopter have to fly to get from M to G ? Assume all coordinates are in miles. **13 mi**

Lesson 1-8

Name each polygon, then identify its sides and angles. Tell whether the polygon is convex or concave.

40.

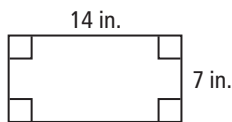


\overline{GHJK} ; $\overline{GH}, \overline{HJ}, \overline{JK}, \overline{KG}$; $\angle GHJ, \angle HJK, \angle JKG, \angle KGH$; convex

Lesson 1-9

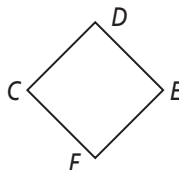
Find the perimeter and area of each figure.

43.



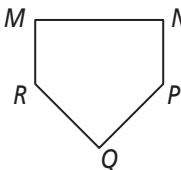
42 in., 98 in.²

41.



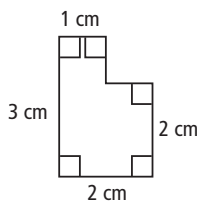
\overline{CDEF} ; $\overline{CD}, \overline{DE}, \overline{EF}, \overline{FC}$; $\angle CDE, \angle DEF, \angle EFC, \angle FCD$; concave

42.



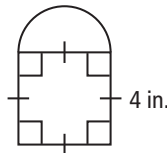
\overline{MNPQR} ; $\overline{MN}, \overline{NP}, \overline{PQ}, \overline{QR}, \overline{RM}$; $\angle MNP, \angle NPQ, \angle PQR, \angle QRM, \angle RMN$; convex

44.



10 cm, 5 cm²

45.



$(12 + 2\pi)$ in., $(16 + 2\pi)$ in.²