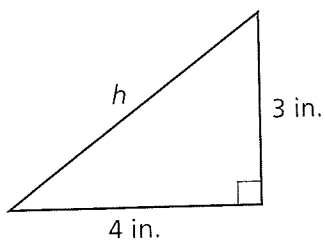
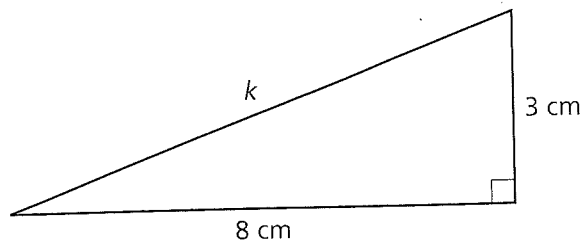


In Exercises 5 and 6, find each missing length.

5.

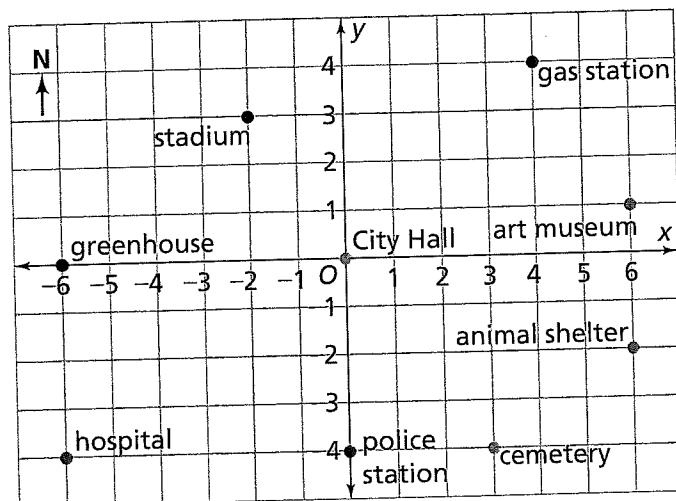


6.



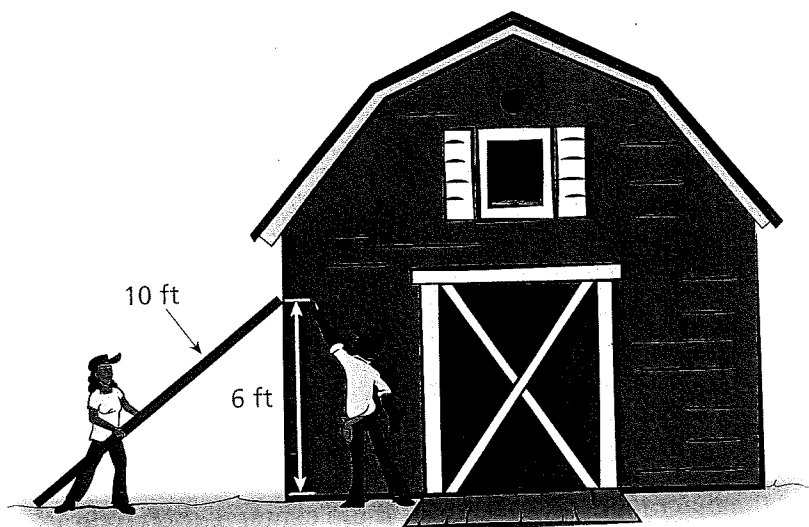
7. On dot paper, find two points that are $\sqrt{17}$ units apart. Label the points W and X . Explain how you know the distance between the points is $\sqrt{17}$ units.
8. On dot paper, find two points that are $\sqrt{20}$ units apart. Label the points Y and Z . Explain how you know the distance between the points is $\sqrt{20}$ units.

For Exercises 9–12, use the map of Euclid. Find the flying distance in blocks between each pair of landmarks without using a ruler. Explain.



9. greenhouse and stadium
10. police station and art museum
11. greenhouse and hospital
12. City Hall and gas station

22. Nayo draws a quadrilateral. It has adjacent sides measuring 16 inches and 20 inches and a diagonal measuring 25 inches. Is her quadrilateral a rectangle? Explain.
23. Bo is building a tree house. He has marked locations for four holes that will hold his corner posts. They form a figure with a long side of 12 feet and a short side of 9 feet. What must the diagonal of the figure be to make sure the base of his tree house is a rectangle?
24. One method for checking whether a wall is perpendicular to the ground involves a 10-foot pole. A builder makes a mark exactly 6 feet high on the wall, and rests one end of the pole at that mark. The other end of the pole rests on the ground. A triangle is formed.



If the triangle is a right triangle, how far from the base of the wall is the bottom of the pole? Explain.

25. In the city of Euclid, Hilary's house is located at $(5, -3)$, and Jamilla's house is located at $(2, -4)$.
- Without plotting points, find the shortest driving distance in blocks between the two houses.
 - What is the exact flying distance between the two houses?

For Exercises 33–38, tell whether it is possible to draw a segment of the given length by connecting dots on dot paper. Explain.

33. $\sqrt{2}$ units

34. $\sqrt{3}$ units

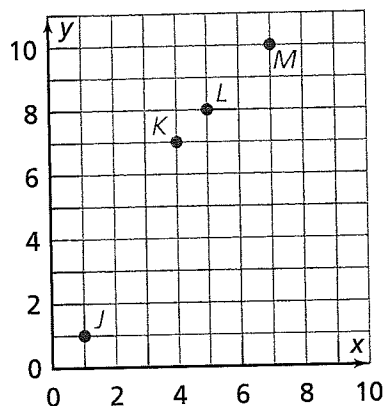
35. $\sqrt{4}$ units

36. $\sqrt{5}$ units

37. $\sqrt{6}$ units

38. $\sqrt{7}$ units

39. Use the graph to answer parts (a)–(c).



- Find the coordinates of points J and K .
- Use the coordinates to find the distance from point J to point K . Explain your method.
- Use your method from part (b) to find the distance from point L to point M .