

# Looking Ahead to Chapter 5

## Focus

In Chapter 5, you will learn about properties of parallel and perpendicular lines, angle and line segment bisectors, and points of concurrency in triangles. You will also learn how to write proofs.

## Chapter Warmup

Answer these questions to help you review skills that you will need in Chapter 5.

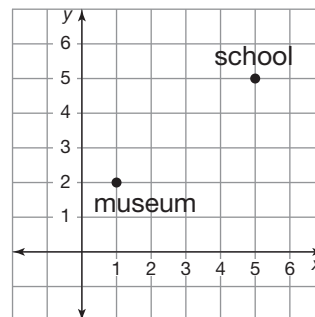
Find the slope of the line that passes through the given points.

- (3, 2) and (5, 6)
- (-1, 0) and (11, -8)
- (7, 9) and (3, 4)

Read the problem scenario below.

Each square on the grid represents a square that is 1 mile long and 1 mile wide.

- Find the distance between the museum and the school.
- The library is located halfway between the museum and the school. Find the coordinates of the point that represents the library. Plot and label this point on the grid.
- Find the distance between the school and the library.



## Key Terms

5

- |                                    |                                |                                 |
|------------------------------------|--------------------------------|---------------------------------|
| plane ■ p. 191                     | corresponding angles ■ p. 194  | perpendicular lines ■ p. 216    |
| coplanar ■ p. 191                  | congruent ■ p. 199             | reciprocal ■ p. 218             |
| parallel lines ■ p. 192            | conditional statement ■ p. 201 | negative reciprocal ■ p. 218    |
| skew lines ■ p. 192                | hypothesis ■ p. 201            | horizontal line ■ p. 221        |
| transversal ■ p. 193               | conclusion ■ p. 201            | vertical line ■ p. 221          |
| interior angle ■ p. 193            | if-then form ■ p. 201          | inscribed triangle ■ p. 224     |
| exterior angle ■ p. 193            | proof ■ p. 201                 | midsegment ■ p. 227             |
| alternate interior angles ■ p. 193 | postulate ■ p. 201             | angle bisector ■ p. 230         |
| alternate exterior angles ■ p. 194 | two-column proof ■ p. 202      | line segment bisector ■ p. 233  |
| same-side interior angles ■ p. 194 | slope ■ p. 214                 | perpendicular bisector ■ p. 233 |
| same-side exterior angles ■ p. 194 | y-intercept ■ p. 214           |                                 |
|                                    | point-slope form ■ p. 214      |                                 |
|                                    | slope-intercept form ■ p. 214  |                                 |