

Looking Ahead to Chapter 6

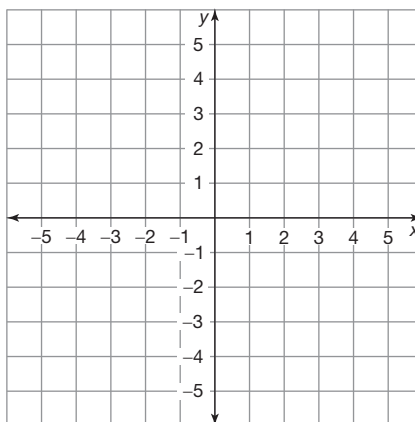
Focus In Chapter 6, you will learn how to reflect, rotate, translate, and dilate shapes in the coordinate plane.

Chapter Warmup

Answer these questions to help you review skills that you will need in Chapter 6.

Plot each point in the coordinate plane.

1. $(-3, 3)$
2. $(4, -2)$
3. $(-4, -3)$
4. $(1, 5)$



Read the problem scenario below.

You are organizing your CD collection by type of music. You have 15 rock CDs, 10 hip hop CDs, and 5 country CDs.

5. What is the ratio of rock CDs to country CDs in your collection?
6. What is the ratio of hip hop CDs to total CDs in your collection?

Key Terms

transformation ■ p. 244

image ■ p. 244

preimage ■ p. 244

reflection ■ p. 245

line of reflection ■ p. 245

isometry ■ p. 245

reflection in the y -axis ■ p. 248

reflection in the x -axis ■ p. 249

reflection in the line

$y = x$ ■ p. 251

rotation ■ p. 254

center of rotation ■ p. 254

angle of rotation ■ p. 254

90° counterclockwise

rotation ■ p. 256

180° rotation ■ p. 256

90° clockwise rotation ■ p. 256

translation ■ p. 262

vector ■ p. 262

initial point ■ p. 262

terminal point ■ p. 262

horizontal translation ■ p. 264

vertical translation ■ p. 265

ratio ■ p. 270

dilation ■ p. 271

center of dilation ■ p. 271

scale factor ■ p. 272

line symmetry ■ p. 278

line of symmetry ■ p. 278

rotational symmetry ■ p. 279