

Chapter 6 Review

Student Text Pages

352 to 353

Suggested Timing

80 min

Tools

- grid paper

Related Resources

BLM G10 Grid Paper

BLM A16 My Progress as a
Mathematician

BLM 6.CR.1 Chapter 6 Review

Ongoing Assessment

- Upon completing the Chapter Review, students can also answer questions such as the following:
 - *Did you work by yourself or with others?*
 - *What questions did you find easy? Difficult? Why?*
 - *How often did you have to check the related example in the text to help you with the questions? For which questions?*

Using the Chapter Review

Each Chapter Review question reviews different skills and concepts. Have students work independently to complete the Chapter Review, then, with a partner to compare solutions. You may wish to use **BLM G10 Grid Paper** to support the activities.

Alternatively, assign the Chapter Review for reinforcing skills and concepts in preparation for the Practice Test. Provide an opportunity for the students to discuss any questions containing strategies or questions with features they find difficult. You may wish to use **BLM 6.CR.1 Chapter 6 Review** for remediation or extra practice.

After they complete the Chapter Review, encourage students to make a list of questions that caused them difficulty, and include the related sections and teaching examples. They can use this to focus their studying for the Chapter Test on the chapter's content. You may wish to have students use **BLM A16 My Progress as a Mathematician** to help them assess their learning.

Chapter 6 Practice Test

Student Text Pages

354 to 355

Suggested Timing

60–80 min

Tools

- grid paper

Related Resources

BLM 6.PT.1 Chapter 6 Practice Test
BLM 6.CT.1 Chapter 6 Test
BLM G10 Grid Paper

Summative Assessment

- After students complete **BLM 6.PT.1 Chapter 6 Practice Test**, you may wish to use **BLM 6.CT.1 Chapter 6 Test** as a summative assessment.

Accommodations

Motor—Give students extra time to complete these questions or allow them to do fewer questions, including examples of each type of question.

Memory—Provide students with the formulas for quizzes and tests.

ESL—Allow students to use a dictionary or translator when completing the questions in the Chapter Review and Chapter Test.

Study Guide

Use the following study guide to direct students who have difficulty with specific questions to appropriate examples to review.

Question	Section(s)	Refer to
1	6.1	Example 1 (page 298)
2	6.3	Investigate (page 315)
3	6.4	Example (page 327)
4	6.4	Example (page 327)
5	6.7	Example 1 (page 345)
6	6.1	Example 3a) (page 301)
7	6.2	Example 1, 2 (pages 309, 310)
8	6.3	Example 2 (page 317)
9	6.5	Example 1 (page 330)
10	6.6	Example (page 339)
11	6.5	Example 3 (page 334)
12	6.7	Example 2 (page 347)

Using the Practice Test

This Practice Test can be assigned as an in-class or take-home assignment. If it is used as an assessment, use the following guidelines to help you evaluate the students.

Can students do each of the following?

- Identify the slope and y -intercept of a linear graph
- Identify the slope and y -intercept given a linear equation
- Write the equation of a line, given the slope and y -intercept
- Rearrange the equation of a line to express it in slope y -intercept form
- Identify the x - and y -intercepts of a linear graph
- Find the x - and y -intercepts given the equation of a line
- Graph a line using various methods (e.g., table of values, slope and y -intercept, x - and y -intercepts)
- Solve contextual problems involving the equation and graph of a line
- Identify whether two lines are parallel, perpendicular, or neither, given their equations
- State the slope of a line parallel or perpendicular to a given line
- Find the equation of a line given its slope and a point on the line
- Find the equation of a line given two points on the line
- Solve and check a linear system of two equations using the graphical method
- Interpret the solution of a linear system in problem-solving contexts

Chapter 6 Problem Wrap-Up

Student Text Pages

355

Suggested Timing

60–80 min

Technology Tools

- Internet
- computers

Related Resources

BLM 6.CP.1 Chapter 6 Problem Wrap-Up Rubric

Summative Assessment

- Use BLM 6.CP.1 Chapter 6 Problem Wrap-Up Rubric to assess student achievement.

Using the Chapter Problem

The Chapter Problem Wrap-Up is an excellent review of the skills introduced in this chapter. Encourage students to include at least as many skills as were introduced in the text.

Review the various problems leading up to the Chapter Problem Wrap-Up to ensure that students understand the skills involved in each one. Caution students to keep their problems simple so that they can be easily solved. It may present a challenge for many students to create problems that have the answers they intend but are still simple.

If students are to exchange problems, it will be more interesting if they choose a variety of cities on which to base their problems. Provide access to the Internet for students to search for interesting facts to provide a context for their problems.

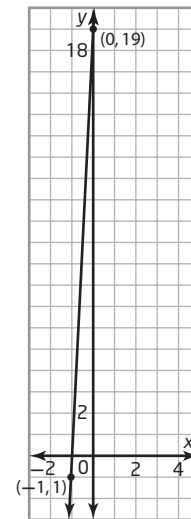
You may wish to assign the Chapter Problem Wrap-Up as a project with a number of days to complete. Allow sufficient time for students to be able to polish their work, providing richer contexts and more complete solutions to the algebra. Note that the original problem does not ask students to provide solutions to their algebra problems. You may decide to add this requirement (and allow additional time for completion).

You may also consider having students work with a partner or in small groups for this Chapter Problem Wrap-Up. The task is sufficiently rich that the parts of the problem could be shared. This will also encourage more checking and polishing of work before it is submitted.

Level 3 Sample Response

I decided to use my hometown for this problem. I used the same hints as in the text. Hints: The town is in Ontario. Each number that you find corresponds to a letter in the alphabet, in sequence. For example, 1 means A, 5 means E, and so on.

1. This town in Ontario is located on a river whose banks form a very steep slope. Two of the letters in the name of this city can be found by determining the slope and y -intercept of the graph shown. [Answer: 18 and 19]
2. There are many retail stores in my hometown. The equation $n - E + 8 = 0$ relates how much a worker earns, E , dollars per hour, to the number of years experience, n . Find the hourly earnings of a beginning retail worker, and of a worker with 5 years experience, to find two more letters in the name of this town. [Answer: 8 and 13]
3. Most of the streets in my hometown run parallel or perpendicular to each other. To find two more letters in the name of this city, find the x - and y -intercepts of the line that is perpendicular to $y = \frac{1}{5}x + 3$, and passes through the point $(2, -5)$. [Answer: 1 and 5]
4. Fort Malden was famous for its role in the war of 1812. It lies at the intersection of two roads. Solve this linear system to find two more letters.
 $x - y + 2 = 0$
 $10x - 9y = 0$ [Answer: 18 and 20]



5. This town is also famous for its role in the Underground Railroad, which helped to settle African Americans fleeing slavery. Many secret codes were used to hide these refugees. Rearrange the equation $y = -\frac{2}{7}x - 3$ into the form $Ax + By + C = 0$. The values of A, B, and C give the final three letters of the name of this town. [Answer: 2, 7, 21]

1, 2, 5, 7, 8, 13, 18, 18, 19, 20, 21 translates to A, B, E, G, H, M, R, R, S, T, U. These letters form the name Amherstburg.

Note: This level of detail is really a level 4 response. A level 3 response would provide a complete puzzle to solve, but some of the parts would lack context or would be very simple mathematically.

Level 3 Notes

Look for the following:

- Complete set of problems that has the intended solution possibly with minor errors
- No letters are missing from the city name, but repeated letters may appear only once
- Problems will involve a variety of analytic geometry skills
- Problems may be closely patterned on those of the text
- Understanding of the analytic geometry concepts in this chapter

What Distinguishes Level 2

At this level, look for the following:

- Partial set of problems working toward an intended solution; major errors may be present
- Letters may be missing from the city name
- Problems may only involve a small set of analytic geometry skills; some problem contexts may be repeated
- Problems may lack a coherent context or may copy those of the text without appropriate adjustments
- Partial understanding of the analytic geometry concepts in this chapter

What Distinguishes Level 4

At this level, look for the following:

- Complete set of problems that has the intended solution with no errors
- All letters are provided in problems including repetitions
- Problems will involve a variety of analytic geometry skills and may extend the set used in the text
- Problem context are rich and connected to each other (and the city in question)
- Thorough understanding of the analytic geometry concepts in this chapter