Chapter 1 Practice Test

Student Text Pages
50–51

Suggested Timing
60 min

Tools
- grid paper

Related Resources
- G–1 Grid Paper
- G–3 Coordinate Grids
- BLM 1–12 Chapter 1 Practice Test
- BLM 1–13 Chapter 1 Test
- BLM 1–14 Chapter 1 Practice Test Achievement Check Rubric

Accommodations

Gifted and Enrichment—Challenge students to prepare an extra Chapter Test for their classmates.

Perceptual—Encourage students to work together in study groups.

Motor—Give students extra time to complete the questions in the Chapter Review, or assign fewer questions for the students to complete.

Memory—Provide students with extra visual and verbal cues and prompts to the questions, and give students opportunities to give oral responses to the questions in the Chapter Review and the Practice 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	1.1	Example 1 (page 9)
2	1.1	Example 2 (pages 10–11)
3	1.1	Example 3 (pages 11–12)
4	1.2	Example 1 (pages 21–22), Example 2 (pages 22–23)
5	1.3	Investigate B (pages 30–31)
6	1.4	Example 1 (page 35), Example 2 (pages 36–37)
7	1.5	Example 1 (page 43)
8	1.5	Investigate (pages 42–43)
9	1.1/1.2	Example 3 (pages 11–13), Example 1 (pages 21–22), Example 3 (pages 23–24)
10	1.1/1.2	Example 2 (pages 10–11), Example 4 (page 25)
11	1.2	Example 4 (page 25)
12	1.2	Example 4 (page 25)
13	1.4	Example 4 (pages 38–39)
14	1.5	Example 1 (page 43)
15	1.2	Example 4 (page 25)
16	1.4	Example 2 (pages 22–23)
17	1.5	Example 1 (page 43)
18	1.5	Example 3 (page 45)
19	1.5	Example 2 (page 44)
20	1.4/1.5	Example 4 (pages 38–39), Example 1 (page 43), Example 2 (page 44)

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?
- Translate from English into algebra
- Solve two equations in two unknowns using graphing
- Solve two equations in two unknowns using the method of substitution
- Identify equivalent linear relations and linear systems
- Solve two equations in two unknowns using the method of elimination
- Solve problems using linear systems

Summative Assessment

- After students complete **BLM 1–12 Chapter 1 Practice Test**, use **BLM 1–13 Chapter 1 Test** as a summative assessment.

Achievement Check Sample Solution, question 20, page 51

Provide students with **BLM 1–14 Chapter 1 Practice Test Achievement Check Rubric** to help them understand what is expected.

Note: Some students may use alternative methods in these solutions.

20. a) Since none of the coefficients of x or y is 1 or -1, the method of substitution is inappropriate. Since none of the coefficients of x or y are the same or additive inverses, multiplication is needed before using elimination. You can multiply equation ① by 3 and add the resulting equations to eliminate y.

b) $x = 4$ and $y = -\frac{1}{2}$

Check: Substitute $x = 4$ and $y = -\frac{1}{2}$ into both original equations to see that L.S. = R.S. for both.

c) Let f represent the speed, in kilometres per hour, of the fishing boat in still water.

Let c represent the speed of the river's current.

Set up a system of equations using speed × time = distance.

Upstream: $(f - c)3 = 36$ ①
Downstream: $(f + c)2 = 36$ ②

The equations can be simplified. Divide both sides of ① by 3 and both sides of ② by 2.

$$\begin{array}{r} f - c = 12 \\ \underline{f + c = 18} \\ 2f \quad\quad = 30 \\ f = 15 \end{array}$$

Substitute $f = 15$ into $f + c = 18$.

$c = 3$

Substituting $f = 15$ and $c = 3$ in ① and ② verifies the solution.

The average speed of the fishing boat in still water is 15 km/h. The speed of the river current was 3 km/h.