

## Answers

### Chapter 10 Practice Test

1. D 2. C 3. A 4. C 5. A 6. multiplication 7.  $y = -16$

8. a)  $\begin{array}{|c|} \hline -x \\ \hline -x \\ \hline -x \\ \hline \end{array} \begin{array}{|c|} \hline \\ \hline \\ \hline \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \\ \hline \\ \hline \end{array}$

b)  $x = -2$

9. a)  $2(x - 4) = 6$  or  $2x - 8 = 6$

b) Answers may vary. Example: Add eight positive 1-tiles to both sides of the equal sign.

10. a)  $x = 12$  b)  $t = 40$  c)  $k = 18.5$  or  $\frac{37}{2}$

d)  $d = 147$  e)  $n = -20$  f)  $x = 5$

11. a) Answers may vary. Example: The first step is to divide both sides of the equation by  $-3$ . The second step is to subtract 3 from both sides of the equation. The solution is  $b = 2$ .

b) Answers may vary. Example: The first step is to subtract 3 from both sides of the equation. The second step is to divide both sides of the equation by  $-3$ . The solution is  $b = 6$ .

12. a)  $7a + 45 = 1536$ , where  $a$  represents the elevation of Lake Athabasca

b) The elevation of Lake Athabasca is 213 m.

13.  $5(l + 3) = 90$ . The length of the original garden is 15 m.

14. a) Answers may vary. Example: In the second line of the solution, 18 is added to  $-6$  instead of subtracted from  $-6$  on the left side of the equation.

b) 
$$\begin{aligned} -6 &= 18 + 3x \\ -6 - 18 &= 18 - 18 + 3x \\ -24 &= 3x \\ -8 &= x \end{aligned}$$

15. a)  $14 = 2(l + 3)$

$7 = l + 3$

$4 = l$

The length of the rectangle is 4 cm.

Check:

$$\begin{aligned} \text{Left Side} &= 14 & \text{Right Side} &= 2(l + 3) \\ & & &= 2(4 + 3) \\ & & &= 2(7) \\ & & &= 14 \end{aligned}$$

Left Side = Right Side

b)  $12 = 2(4 + w)$

$6 = 4 + w$

$2 = w$

The width of the new rectangle is 2 cm.

$A = 1 \times w$

$A = 4 \times 2$

$A = 8$

The area of the new rectangle is  $8 \text{ cm}^2$ .

Assessment	Supporting Learning
<b>Assessment as Learning</b>	
<p><b>Chapter 10 Self-Assessment</b> Have students review their earlier responses in the What I Need to Work On section of their chapter Foldable.</p>	<ul style="list-style-type: none"> <li>Have students use their responses on the practice test and work they completed earlier in the chapter to identify areas in which they may need to reinforce their understanding of skills or concepts. Before the chapter test, coach them in the areas in which they are having difficulties.</li> </ul>
<b>Assessment of Learning</b>	
<p><b>Chapter 10 Test</b> After students complete the practice test, you may wish to use <b>BLM 10–13 Chapter 10 Test</b> as a summative assessment.</p>	<ul style="list-style-type: none"> <li>Some students will benefit from having a set of algebra tiles and/or cups and counters to help them model and solve the equations. If algebra tiles are not available, distribute <b>Master 15 Algebra Tiles</b>.</li> <li>Consider allowing students to use their chapter Foldable.</li> <li>Consider using the Math Games on page 404 or the Challenge in Real Life on page 405 to assess the knowledge and skills of students who have difficulty with tests.</li> </ul>