Chapter Test C

CHAPTER **1**

For use after Chapter 1

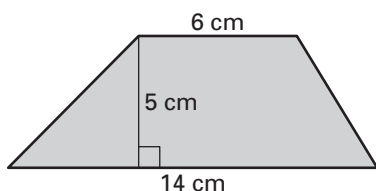**Evaluate the expression for the given value of the variable.**

1. n^3 when $n = \dfrac{2}{3}$

2. $\dfrac{x}{y}$ when $x = 6$ and $y = \dfrac{1}{2}$

3. You can estimate your distance (in miles) from a thunderstorm by using the expression $\dfrac{t}{4.8}$, where t is the number of seconds between seeing the lightning and hearing the thunder. How far away is the thunderstorm, if 24 seconds after you see the lightning you hear the thunder?

Evaluate the expression.

4. $[15 + (5^2 \cdot 2)] \div 13$

5. $\dfrac{(37 - 26)^2 - 6}{32 \div 2^2 - (4^2 - 13)}$

Evaluate the expression.

6. $8 + 4(q - 3) + q$ when $q = 6$

7. $\dfrac{2m - n}{m^2 - 2n + 2}$ when $m = 5$ and $n = 3$

8. The formula for the area of a trapezoid is one-half the product of the sum of the bases times the height. Find the area of the trapezoid below.

6 cm

5 cm

14 cm

Write an equation or an inequality.

9. The quotient of a number x and 11 is at least 2 less than the number x.

10. The product of 5 and a number n plus 7 is fewer than the quotient of the number n and 2.

11. Three times the sum of 4 and a number y squared is the same as the difference of 14 and the number y.

12. The quotient of the difference of a number w cubed and 9 and 3 is more than the difference of 12 and the product of 2 and the number w.

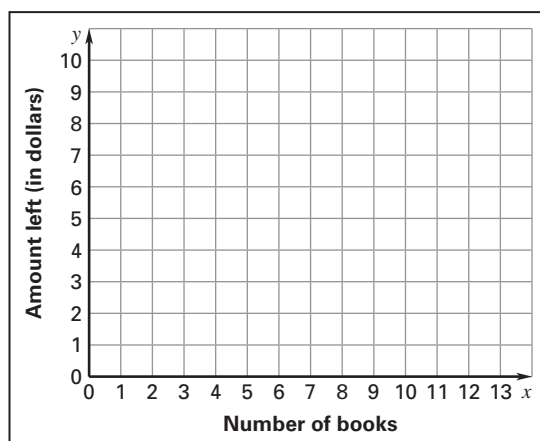**Check whether the given number is a solution of the equation or inequality.**

13. $\dfrac{x - 1}{2} + 5 > x + 1$; 8

14. $3(x - 7) = 19 - x$; 10

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

CHAPTER 1	**Chapter Test C** *continued*
	For use after Chapter 1

15. Your aunt wants to spend at most $800 on a video camera and video-tapes. She plans to buy the camera for $695 and tapes for $5.75 each. Can she buy 20 videotapes?

16. You invested $1500 in a bank account for 5 years and received $150 in interest. What was the annual simple interest rate for the account?

17. At a yard sale, you find a number of paperback books by your favorite author. You have $10 and each book is priced at $.75. Write a rule for the amount of money you have left as a function of the number of books you buy. Then use the grid below to graph the function.
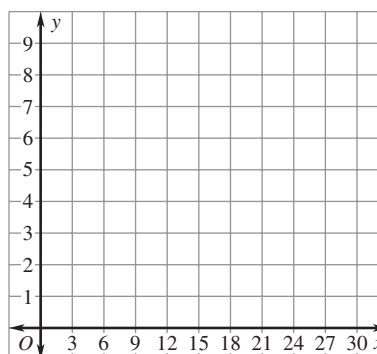
Answers

15. _____

16. _____

17. _____

_____ See left. _____

18. _____ See left. _____

_____

_____ See left. _____

19. _____ See left. _____

_____

_____ See left. _____

Make a table for the function. Identify the range of the function. Then graph the function.
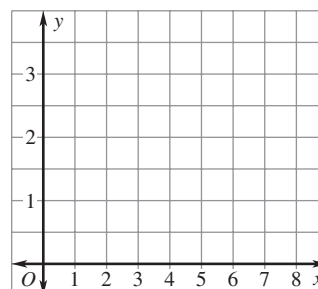
18. $y = \frac{1}{3}x - 1$

Domain: 12, 15, 21, 30

Input, x				
Output, y				

19. $y = \frac{x+2}{4}$

Domain: 0, 2, 4, 6

Input, x				
Output, y				