

Chapter Test C

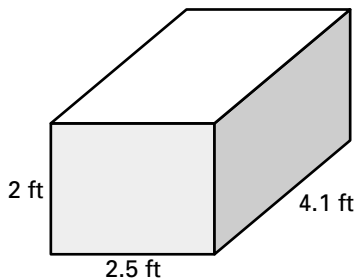
For use after Chapter 1

Evaluate the expression for the given value of the variable.

1. $\frac{5}{6} \cdot x$ when $x = \frac{3}{2}$

2. $\frac{7}{8} - t$ when $t = \frac{3}{16}$

3. If it takes you one hour and forty-five minutes to drive 105 miles, how fast were you driving?
4. The volume of a rectangular prism is the product of its length, width, and height. Find the volume of the prism below.

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

5. $24 - 3a^3$ when $a = 2$

6. $\frac{b}{8} + 15$ when $b = 256$

Evaluate the expression for the given values of the variables.

7. $x - y^2$ when $x = 26$ and $y = 5$

8. $(b - a)^5$ when $a = 4$ and $b = 10$

9. The formula for the volume of a pyramid is $\frac{1}{3}$ times the height times the area of the base. If a pyramid is 150 feet high and 250 feet along each side of its square base, what is the pyramid's volume?

Evaluate the expression.

10. $[15 + (5^2 \cdot 2)] \div 13$

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

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

12. $4x - 3x = \frac{9}{x}; 3$

13. $\frac{40 - x}{x} \geq 4; 8$

14. If you invested \$1500 in a bank account for 5 years and received \$150 in interest, what was the annual interest rate for the account?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____

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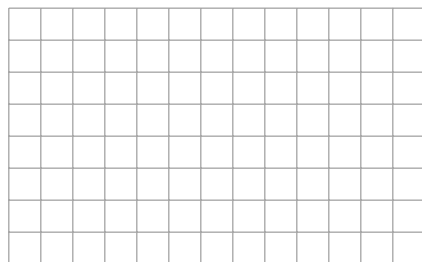
Write the verbal sentence as an equation or an inequality.

- 15. The quotient of x and eleven is less than or equal to fifty-seven.
- 16. Twenty-seven is greater than the sum of x minus five and twelve.

Write an equation or inequality to model the situation.

- 17. The total cost C of an item is equal to the sum of the price p and the quantity 0.06 multiplied by p .
- 18. The area A of a triangle is equal to one-half times the product of the base b and the height h .
- 19. The table shows the value of one share of a stock for a five-day period. Make a line graph of the data.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Value	\$9.75	\$10.25	\$8.50	\$9.50	\$11.00



Make an input-output table for the function. Use 0.6, 1, 1.6, and 2 as the domain.

20. $y = 1.5x^2 - 0.25$

Input	Output

21. $y = \frac{x}{0.5} + 3.75$

Input	Output

Answers

- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. Use area at left.
- 20. Use table at left.
- 21. Use table at left.