English Spanish

7 Chapter Review

Check It Out Vocabulary Help BigIdeasMath.com

Review Key Vocabulary

equation, *p. 278*
solution, *p. 284*
inverse operations, *p. 285*
two-step equation, *p. 298*
terms, *p. 300*
like terms, *p. 300*
rectangular prism, *p. 314*
volume, *p. 314*
cubic units, *p. 314*

Review Examples and Exercises

7.1 Writing Equations in One Variable *(pp. 276–281)*

A baker makes 63 muffins. Twenty-seven of the muffins are blueberry muffins. The rest are corn muffins. Write an equation you can use to find the number *c* of corn muffins.

Words	The number of blueberry muffins	plus	the number of corn muffins	is	the total number of muffins.
Equation	27	+	c	=	63

∴ An equation is $27 + c = 63$.

Exercises

Write the word sentence as an equation.

1. The product of a number m and 2 is 8.
2. 6 less than a number t is 7.
3. You spend $35 at the mall. You have $3 left. Write an equation to find how much money you had when you arrived at the mall.

7.2 Solving Equations Using Addition or Subtraction *(pp. 282–289)*

Solve $z + 5 = 13$.

Undo the addition. →

$$\begin{aligned} z + 5 &= 13 && \text{Write the equation.} \\ -5 \quad &-5 && \text{Subtract 5 from each side.} \\ z &= 8 && \text{Simplify.} \end{aligned}$$

∴ The solution is $z = 8$.

Check

$z + 5 = 13$

$8 + 5 \stackrel{?}{=} 13$

$13 = 13$ ✓

Exercises

Solve the equation. Check your solution.

4. $x - 1 = 8$
5. $m + 7 = 11$
6. $21 = p - 12$

English Spanish

7.3 Solving Equations Using Multiplication or Division *(pp. 290–295)*

Solve $4c = 32$.

$4c = 32$	Write the equation.
$\frac{4c}{4} = \frac{32}{4}$	Divide each side by 4.
$c = 8$	Simplify.

Undo the multiplication.

The solution is $c = 8$.

Check

$4c = 32$

$4(8) \stackrel{?}{=} 32$

$32 = 32$ ✓

Exercises

Solve the equation. Check your solution.

7. $7 \cdot q = 42$ **8.** $k \div 2 = 26$ **9.** $\frac{a}{14} = 3$

7.4 Solving Two-Step Equations *(pp. 296–303)*

Solve $\frac{x}{2} - 3 = 5$.

$\frac{x}{2} - 3 = 5$	Write the equation.
$+3 \quad +3$	Add 3 to each side.
$\frac{x}{2} = 8$	Simplify.
$\frac{x}{2} \cdot 2 = 8 \cdot 2$	Multiply each side by 2.
$x = 16$	Simplify.

Undo the subtraction.

Undo the division.

The solution is $x = 16$.

Check

$\frac{x}{2} - 3 = 5$

$\frac{16}{2} - 3 \stackrel{?}{=} 5$

$8 - 3 \stackrel{?}{=} 5$

$5 = 5$ ✓

Exercises

Solve the equation. Check your solution.

10. $6q + 1 = 13$ **11.** $\frac{d}{3} + 2 = 9$ **12.** $110 = 4p - 50$

13. $8 = \frac{z}{3} + 8$ **14.** $6.8c + 5 = 25.4$ **15.** $\frac{t}{12} - 0.5 = 2$

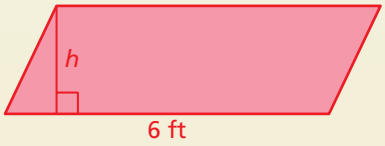
16. You buy three CDs and a $15 DVD. You spend $45. Write and solve an equation to find the price of each CD.

English Spanish

7.5 Finding Dimensions of Plane Figures *(pp. 306–311)*

The area of the parallelogram is 12 square feet. What is its height?

$A = bh$	Write formula for area of a parallelogram.
$12 = 6h$	Substitute 12 for A and 6 for b.
$2 = h$	Divide each side by 6.

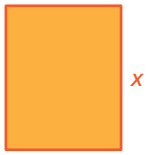


∴ The height is 2 feet.

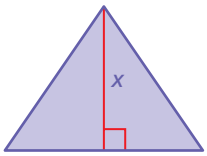
Exercises

Write and solve an equation to find x. Check your solution.

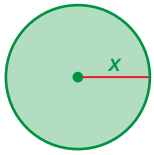
17. Perimeter = 36 yd



18. Area = 44 cm^2



19. Circumference = 62.8 m

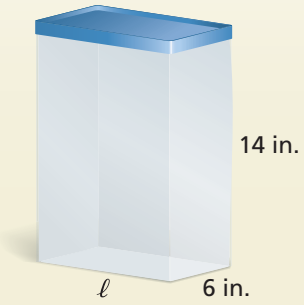


7.6 Finding Dimensions of Prisms *(pp. 312–317)*

Write and solve an equation to find the length of the container.

$V = \ell wh$	Write formula for volume.
$840 = \ell(6)(14)$	Substitute 840 for V, 6 for w, and 14 for h.
$840 = 84\ell$	Simplify.
$10 = \ell$	Divide each side by 84.

∴ The length is 10 inches.



Volume = 840 $in.^3$

Exercises

Write and solve an equation to find the missing dimension of the rectangular prism.

20. Volume = 312 $in.^3$

21. Volume = 48 $in.^3$