

Factoring  
Review

Name \_\_\_\_\_  
Period \_\_\_\_\_

Multiply. *A.4.B*

1.  $(-2x - 4)(2x + 5)$

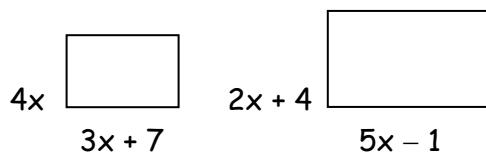
2.  $(3x + 2)(-3x - 1)$

3.  $(5x - 2)(x + 3)$

4.  $(-x + 4)(-3x - 4)$

5. Find the area of a rectangle with a length of  $(8x - 2)$  cm and a width of  $(3x + 5)$  cm.

6. Find the total area of both rectangles.



7. Find the volume of a rectangular prism with a length of  $(2x - 1)$  cm, a width of  $(-4x + 5)$  cm, and a height of  $(3x)$  cm.

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**Factor and solve.** (A.4.A)

8.  $x^2 + 8x + 15 = 0$

9.  $x^2 + 20 = 12x$

10.  $x^2 - 36 = 0$

11.  $x^2 - 6x = -8$

**Solve.** (A.4.A, A.10.A)

12. Rose owns a rectangular quilt. The area of her quilt is  $(x^2 - 15x + 26)$  feet. What is the width of her quilt if the length is  $(x - 13)$  feet?

13. Brian spent  $\$(5x^2 + 8x + 3)$  dollars for  $(x + 1)$  CD's. Assuming that each CD was the same price, how much was each CD?

14. The area of a rectangular kitchen table is  $(t^2 + t - 6)$  square inches.

a. Find the dimensions of the table in terms of  $t$ .

b. What are the dimensions of the table if  $t = 15$ ?

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15. The area of a triangle is given by the equation  $h^2 - 6h = 72$  where  $h$  is the height of the triangle. What is the value of  $h$ ?
16. The length of time required by a high-speed printer to print a large set of documents is given by the equation  $x^2 - 3x - 54 = 0$  where  $x$  is the time in hours. How many hours are required to print the set of documents?
17. The area of a rectangle is  $3x^2 + 14x + 8$ , and the width is  $x + 4$ . What is the rectangle's length?
18. The area of a rectangle is given by the equation  $2L^2 - 11L = -5$ , in which  $L$  is the rectangle's length. What is the length of the rectangle?