UNIT 4

Section 1: Factoring Quadratic Equations

27. The expression below represents the area, in square meters, of a rectangle.

$$x^2 - 8x + 12$$

Which of the following pairs of expressions could represent the length and width, in meters, of the rectangle?

factor

$a = 1$
$B = -8$
$C = 12$

12 | −8

A. $(x-3)(x-4)$ B. $(x+2)(x+6)$
C. $(x-2)(x-6)$ D. $(x+3)(x+4)$

28. The expression below represents the area, in square meters, of a rectangle.

$$x^2 - 9x + 20$$

Which of the following pairs of expressions could represent the length and width, in meters, of the rectangle?

factor

$a = 1$
$B = -9$
$C = 20$

20 | −9

A. $(x+5)(x+4)$ B. $(x+2)(x+10)$
C. $(x-2)(x-10)$ D. $(x-5)(x-4)$

29. When factored the quadratic $x^2 + bx + c$ equals $(x-3)(x+3)$. What is the value of c?

FOIL

$x^2 - 3x + 3x - 9$
$x^2 + 0x - 9 \rightarrow x^2 - 9$

$B = 0$
$C = -9$

A. 9 B. −9 C. 0 D. −3

30. When factored the quadratic $x^2 + bx + c$ equals $(x-6)(x+6)$. What is the value of c?

FOIL

$x^2 + 6x - 6x - 36$
$x^2 + 0x - 36 \rightarrow x^2 - 36$

$B = 0$
$C = -36$

A. −6 B. 0 C. −36 D. 36

UNIT 5

Section 1: Solving by Factoring

31. Which of the following are the solutions of the quadratic equation below?

factor + solve

$x^2 - x - 20 = 0$

$A = 1$
$B = -1$
$C = -20$

−20 | −1

$(x-5)(x+4) = 0$

$x - 5 = 0 \quad x + 4 = 0$

$x = 5 \quad x = -4$

A. $x = -4; x = 5$ B. $x = -2; x = 10$
C. $x = 2; x = -10$ D. $x = 4; x = -5$

32. What are the solutions of the quadratic equation below?

factor + solve

$x^2 - x - 6 = 0$

$A = 1$
$B = -1$
$C = -6$

−6 | −1

$(x-3)(x+2) = 0$

$x - 3 = 0 \quad x + 2 = 0$

$x = 3 \quad x = -2$