

Factor simple trinomials with leading coefficient one

1

Which answer is the same expression as this
 $(w - 8)(w - 4)$

A

$$w^2 - 32w + 32$$

B

$$w^2 - 12w + 32$$

2

Which answer is the same expression as this
 $(r - 6)(r + 7)$

A

$$r^2 - 13r - 42$$

B

$$42r^2 + 13r + 20$$

C

$$13r^2 - r + 42$$

D

$$r^2 + 1r - 42$$

E

$$r^2 - 13r + 42$$

3

What is true about 'a' and 'b' for this quadratic?

$$x^2 + 11x + 18 = (x + a)(x + b)$$

A

$$\begin{aligned} a + b &= 18 \\ a \times b &= 11 \end{aligned}$$

B

$$\begin{aligned} a + b &= 22 \\ a \times b &= 18 \end{aligned}$$

C

$$\begin{aligned} a + b &= 11 \\ a \times b &= 36 \end{aligned}$$

D

$$\begin{aligned} a + b &= 11 \\ a \times b &= 18 \end{aligned}$$

4

Which pair of integers add to 0 and multiply to 0?

$$x^2 + 0x + 0 = (x + a)(x + b)$$

A 0, 1

B -2, 0

C -4, -5

D -3, -4

E 0, 0

F -3, 2

5

What is true about 'a' and 'b' for this quadratic?

$$x^2 + 10x + 16 = (x + a)(x + b)$$

A

$$\begin{aligned} a + b &= 20 \\ a \times b &= 16 \end{aligned}$$

B

$$\begin{aligned} a + b &= 16 \\ a \times b &= 10 \end{aligned}$$

C

$$\begin{aligned} a + b &= 10 \\ a \times b &= 32 \end{aligned}$$

D

$$\begin{aligned} a + b &= 10 \\ a \times b &= 16 \end{aligned}$$

6

Which pair of integers add to -15 and multiply to 56?

$$x^2 - 15x + 56 = (x + a)(x + b)$$

A -8, -10

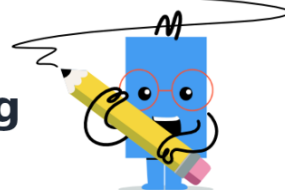
B -5, -8

C -7, -8

D -3, -10

E -10, -12

F -10, -4



Factor simple trinomials with leading coefficient one

7

Factor the 2nd order polynomial to give three binomial factors

$$(m - 7)(m^2 - 4)$$

A

$$(m - 7)(m - 2)(m + 2)$$

B

$$(m - 7)(m + 2)(m + 2)$$

8

Factor the quadratic now that the common factor has been removed

$$-7(n^2 + 5n + 6)$$

A

$$-7(n + 3)(n + 2)$$

B

$$7(n + 42)(n - 6)$$

C

$$-7(n + 3)(n - 2)$$

D

$$7(n - 3)(n + 2)$$

E

$$-7(n - 3)(n - 2)$$

9

Rewrite the expression with the denominators factored.

$$\frac{7}{x^2 - 8x + 15} - \frac{7}{x^2 - 2x - 8}$$

A

$$\frac{7}{(x + 5)(x - 3)} - \frac{7}{(x - 4)(x + 2)}$$

B

$$\frac{7}{x^2 - 8x + 15} - \frac{7}{x^2 - 2x - 8}$$

C

$$\frac{7}{(x - 4)(x - 3)} - \frac{7}{(x - 3)(x + 2)}$$

D

$$\frac{7}{(x - 5)(x - 3)} - \frac{7}{(x - 4)(x + 2)}$$

10

Which answer is the same expression as this

$$z^2 - 2z - 48$$

A

$$(z - 6)(z - 8)$$

B

$$(z + 6)(z + 8)$$

C

$$(2z - 6)(z + 8)$$

D

$$(z + 6)(z - 8)$$

E

$$(z - 6)(2z + 8)$$

11

Which answer is the same expression as this

$$q^2 - 9$$

A

$$(q - 4)(q + 3)$$

B

$$(q + 2)(q - 4)$$

C

$$(q + 3)(q - 3)$$

D

$$(6q - 3)(q + 3)$$

E

$$(9q - 3)(q + 3)$$

12

Which answer is the same expression as this

$$n^2 - 81$$

A

$$(18n - 9)(n + 9)$$

B

$$(n - 18)(n + 18)$$

C

$$(n - 9)(n + 9)$$

D

$$(n + 7)(n - 9)$$

E

$$(n + 9)(n - 9)$$