

Factor perfect-square trinomials

1

Which answer is the same expression as this
 $(m + 8)(m + 8)$

A

$$m^2 + 16m + 64$$

B

$$m^2 + 64m - 16$$

3

What constant value would make this polynomial
a perfect square?

$$t^2 - 8t + ?$$

A

4

B

36

C

9

D

16

E

40

F

25

2

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

$$x^2 + 12x + 35 \\ = (x + a)(x + b)$$

A

$$a + b = 24 \\ a \times b = 35$$

B

$$a + b = 12 \\ a \times b = 35$$

C

$$a + b = 12 \\ a \times b = 70$$

D

$$a + b = 35 \\ a \times b = 12$$

4

Which constant value makes this polynomial a
perfect square?

$$z^2 + 18z + ?$$

A

$$z^2 + 18z + 80$$

B

$$z^2 + 18z + 81$$

5

Is this polynomial a perfect square?

$$p^2 + 10p + 25$$

A

No

B

Yes

6

Complete the square to be ready to factor this polynomial

$$y = -1x^2 - 4x - 8$$

A

$$y = -1(x^2 + 8x + 4) + 4 - 8$$

B

$$y = -1(x^2 + 4x + 4) - 0 - 8$$

C

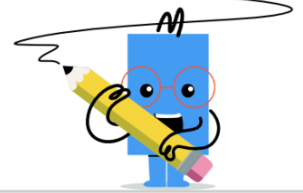
$$y = -1(x^2 + 4x + 7) + 4 - 8$$

D

$$y = -1(x^2 + 4x + 4) - 4 - 8$$

E

$$y = -1(x^2 + 4x + 4) + 4 - 8$$



Factor perfect-square trinomials

7Find the value of z without using a calculator

$$\sqrt{4z^2 + 8z + 4} = 24$$

A $z = 2$

B $z = 8$

C $z = 7$

D $z = 11$

E $z = 14$

F $z = 17$

8

This polynomial is a perfect square. What factor squared would give this polynomial?

$$m^2 + 6m + 9$$

A $(m + 1)^2$

B $(m + 4)^2$

C $(m + 3)^2$

D $(m + 0)^2$

E $(m + 5)^2$

F $(m + 6)^2$

9

What does this expression simplify to?

$$w^2 + 2w + 1$$

A $(w + 1)$

B $(w - 1)^2$

C $(w + 1)^2$

10Find the value of w without using a calculator

$$\sqrt{25w^2 + 50w + 25} = 90$$

A $w = 18$

B $w = 20$

C $w = 17$

D $w = 19$

E $w = 14$

F $w = 23$

11

Solve the square polynomial to finish factoring

$$y = -4(x^2 + 4x + 4) + 16 - 14$$

A $y = -4(x - 2)^2 - 2$

B $y = 4(x + 2)^2 - 2$

C $y = -4(x + 2)^2 + 2$

D $y = 4(x + 2)^2 + 2$

12

This polynomial is a perfect square. What factor squared would give this polynomial?

$$y^2 + 0y + 0$$

A $(y + 0)^2$

B $(y - 1)^2$

C $(y - 2)^2$

D $(y + 2)^2$

E $(y + 3)^2$

F $(y - 3)^2$