

1. Solve this equation for x:

$$(x - 3)^2 = 4$$

a) $x = 4, x = -3$

b) $x = 1, x = 3$

c) $x = -1, x = 5$

d) $x = -2, x = 4$

2. What expression is equivalent to $x^2 + 4x + 4$

a) $(x + 2)^2$

b) $(x + 2)(x - 2)$

c) $(x + 16)^2$

d) $(x + 4)^2$

3. What expression is equivalent to $x^2 + 24x + 144$

a) $(x + 36)^2$

b) $(x + 6)^2$

c) $(x + 144)^2$

d) $(x + 12)^2$

4. What expression is equivalent to $x^2 + 20x + 100$

a) $(x + 100)^2$

b) $(x + 5)^2$

c) $(x + 20)^2$

d) $(x + 10)^2$

5. What expression is equivalent to $x^2 - 18x + 81$

a) $(x - 9)^2$

b) $(x + 9)^2$

c) $(x + 3)^2$

d) $(x + 18)^2$

6. Is this expression a perfect square?

$$x^2 + 4x + 3$$

a) Yes

b) No

7. Is this expression a perfect square?

$$x^2 + 20x + 50$$

a) Yes

b) No

8. Is this expression a perfect square?

$$x^2 + 2x + 2$$

a) Yes

b) No

9. Is this expression a perfect square?

$$x^2 + 16x + 64$$

a) Yes

b) No

10. Solve this equation for x:

$$(x + 4)^2 = 16$$

a) $x = 4, x = -4$

b) $x = 0, x = 4$

c) $x = 12, x = 8$

d) $x = -8, x = 0$

11. Solve this equation for x:

$$(x + 2)^2 = 9$$

a) $x = 5, x = 0$

b) $x = 2, x = 9$

c) $x = 2, x = -2$

d) $x = 1, x = -5$

12. Solve this equation for x:

$$(x - 5)^2 = 9$$

a) $x = 2, x = 8$

b) $x = -4, x = 14$

c) $x = 4, x = 6$

d) $x = 0, x = 10$

13. What expression is equivalent to $x^2 - 10x + 25$

a) $(x - 5)^2$

b) $(x - 2.5)^2$

c) $(x + 5)^2$

d) $(x - 10)^2$