
6. What is the best method in order to factor to solve the following equation: $x^2 - 144$?

- (A) Factoring trinomials when $a = 1$ (B) GCF Method
(C) Factoring trinomials when $a \neq 1$ (D) Difference of Two Squares

7. Factor: $x^2 - 144$

- (A) $(x + 12)^2$ (B) $(x - 12)^2$
(C) $(x + 12)(x - 12)$ (D) $(x + 12)(x + 12)$

8. List the factored form of the following expression: $x^2 + 10x + 25$

- (A) $(x + 5)^2$ (B) $(x - 5)^2$
(C) $(x + 5)(x - 5)$ (D) $(x - 5)(x - 5)$

9. What would be the first step in factoring the trinomial expression: $4x^3 + 24x^2 + 36x$?

- (A) X-Method (B) Box Method
(C) Factor out a GCF of 4 (D) Factor out a GCF of $4x$

10. When using the X-Method to factor, what term(s) from the expression goes in the top of the X?

- (A) $a \cdot c$ (B) a
(C) $a \cdot b$ (D) b

11. Factor: $2x^2 + 3x = 2$

(A) $(2x + 1)(x + 2)$

(C) $(x - 1)(x + 4)$

(B) $(2x - 1)(x + 2)$

(D) $(x + 1)(x - 4)$

12. When using the X-Method to factor the above trinomial, which number did you place in the **bottom** of the X?

(A) 2

(C) -4

(B) 3

(D) -2

13. Solve by factoring: $x^2 - 2x - 15 = 0$

(A) $x = -5$ and $x = 3$

(C) $x = 5$ and $x = -3$

(B) $x = -5$ and $x = 10$

(D) $x = 5$ and $x = -10$

14. What is the best method in order to factor to solve the following equation: $x^2 - 12x = -32$?

(A) Factoring trinomials when $a = 1$

(C) Factoring trinomials when $a \neq 1$

(B) GCF Method

(D) Difference of Two Squares

15. Solve: $2x^2 - 5 = 13$

(A) $x = 5$ and -5

(C) $x = 9$ and -9

(B) $x = \frac{\sqrt{13}}{2}$ and $-\frac{\sqrt{13}}{2}$

(D) $x = 3$ and -3