CONNECTICUT ALGEBRA II · UNIT 2 · 25 QUESTIONS

Polynomials and Rational Functions — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **When (x + 2)(x + 3) is expanded , the coefficient of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **When (x + 1)(x + 5) is expanded , the coefficient of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **When (x + 3)(x + 4) is expanded , the coefficient of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **When (x + 2)(x + 6) is expanded , the coefficient of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **When (x + 4)(x + 2) is expanded , the coefficient of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **When (x + 2)(x + 3) is expanded , the constant term is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **When (x + 1)(x + 5) is expanded , the constant term is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **When (x + 3)(x + 4) is expanded , the constant term is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **When (x + 2)(x + 6) is expanded , the constant term is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **When (x + 4)(x + 2) is expanded , the constant term is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **The factored form of $x^2 + 5x + 6$ is**

- **A** $(x + 2)(x - 3)$
- **B** $(x - 2)(x + 3)$
- **C** $(x + 2)(x + 3)$
- **D** $(x + 3)(x + 3)$

Understand It with Pulse | Flag a mistake

12 **The factored form of $x^2 + 9x + 20$ is**

- **A** $(x + 4)(x - 5)$
- **B** $(x - 4)(x + 5)$
- **C** $(x + 5)(x + 5)$
- **D** $(x + 4)(x + 5)$

Understand It with Pulse | Flag a mistake

13 **The factored form of $x^2 + 7x + 6$ is**

A (x + 1)(x + 6)

B (x + 1)(x - 6)

C (x - 1)(x + 6)

D (x + 2)(x + 6)

Understand It with Pulse | Flag a mistake

14 **The factored form of $x^2 + 10x + 21$ is**

A (x + 3)(x - 7)

B (x + 3)(x + 7)

C (x - 3)(x + 7)

D (x + 4)(x + 7)

Understand It with Pulse | Flag a mistake

15 The factored form of $x^2 + 6x + 8$ is

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

Understand It with Pulse | Flag a mistake

16 For the polynomial $2x^3 + 3x^2 + 4x + 1$, the degree is

ANSWER _____

Understand It with Pulse | Flag a mistake

17 For the polynomial $1x^3 + 2x^2 + 5x + 1$, the degree is

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **For the polynomial $3x^3 + 1x^2 + 2x + 1$, the degree is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **For the polynomial $2x^3 + 2x^2 + 3x + 1$, the degree is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **For the polynomial $4x^3 + 1x^2 + 2x + 1$, the degree is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **For the polynomial $3x^2 + 2x + 6$ evaluated at $x = 2$, the value is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **For the polynomial $2x^2 + 5x + 6$ evaluated at $x = 2$, the value is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **For the polynomial $4x^2 + 3x + 6$ evaluated at $x = 2$, the value is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **For the polynomial $5x^2 + 1x + 6$ evaluated at $x = 2$, the value is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **For the polynomial $2x^2 + 4x + 6$ evaluated at $x = 2$, the value is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 5
2. 6
3. 7
4. 8
5. 6
6. 6
7. 5
8. 12
9. 12
10. 8
11. C
12. D
13. A
14. B
15. C
16. 3
17. 3
18. 3
19. 3
20. 3
21. 22
22. 24
23. 28
24. 28
25. 22

© 2026 Brett Robbins. All Rights Reserved.