

Polynomials Quiz Answer Key PDF

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What is the degree of the polynomial $2x^3 + 5x^2 - x + 8$?

- A. 1
- B. 2
- C. 3 ✓**
- D. 4

Which of the following are special factoring formulas? (Select all that apply)

- A. Difference of squares ✓**
- B. Sum of cubes ✓**
- C. Perfect square trinomial ✓**
- D. Quadratic formula

Which of the following are examples of cubic polynomials? (Select all that apply)

- A. $x^3 + 2x^2 + x + 1$ ✓**
- B. $2x^2 + 3x + 4$
- C. $4x^3 - x$ ✓**
- D. $x^4 - x^3 + x$

What is the sum of the polynomials $x^2 + 3x + 2$ and $2x^2 - x + 4$?

- A. $3x^2 + 2x + 6$ ✓**
- B. $3x^2 + 4x + 6$
- C. $x^2 + 2x + 6$
- D. $3x^2 + 2x + 4$

Which of the following is a factor of $x^2 - 4x + 4$?

- A. $x - 1$
- B. $x - 2$ ✓**
- C. $x - 3$
- D. $x - 4$

What is the remainder when $x^3 - 2x^2 + 3$ is divided by $x - 1$?

- A. 0
- B. 1 ✓**
- C. 2
- D. 3

Which polynomial represents a quadratic expression?

- A. $x^3 + 2x^2 + x$
- B. $3x^2 + 4x + 5$ ✓**
- C. $5x + 1$
- D. $x^4 - x^2 + 1$

What are the roots of the polynomial $x^2 - 5x + 6$? (Select all that apply)

- A. 1
- B. 2 ✓**
- C. 3 ✓**
- D. 4

What is the leading coefficient of the polynomial $5x^4 - 2x^3 + x - 6$?

- A. 5 ✓**
- B. -2
- C. 1
- D. -6

Which of the following are considered polynomials? (Select all that apply)

- A. $3x^2 + 2x + 1$ ✓**
- B. $x^{-1} + 4$

C. $5x^3 - 2x + 7$ ✓

D. $\sqrt{x} + 1$

Which of the following expressions can be factored using the difference of squares formula? (Select all that apply)

A. $x^2 - 9$ ✓

B. $x^2 + 4$

C. $4x^2 - 16$ ✓

D. $x^2 - 2x + 1$

Which of the following is a binomial?

A. $5x^2 + 3x + 1$

B. $x^2 - 4$ ✓

C. x^3

D. $2x^2 + 4x + 6$

Which of the following is a monomial?

A. $4x + 2$

B. $7x^2$ ✓

C. $x^2 - 3x + 1$

D. $x^3 + x$

Which of the following operations can be performed on polynomials? (Select all that apply)

A. Addition ✓

B. Subtraction ✓

C. Multiplication ✓

D. Division ✓