

Mathematics: Lesson03

Assessment



Question 1

Which expression is *not* a polynomial?

A. $x^3 - 2x^2 + 3x - 2$

B. $-3x + 5x^{14} - 3$

C. $x^{-2} + x$

D. 5

Question 2

What is the degree of this polynomial?

$$4x^5 - 5x^4 - 3x^2 + 2$$

A. 2

B. 3

C. 4

D. 5

Question 3

The expression $x^3 - \sqrt{2}$ is a polynomial.

A. True

B. False

Question 4

Write this expression in its simplest form:

$$\frac{(2x^3)(8x^5)}{4x^6}$$

- A. x^2
- B. $4x^2$
- C. $4x^9$

Question 5

Evaluate $[(-4)^0]^5$.

- A. 5
- B. -5
- C. 1
- D. -1

Question 6

Simplify $\frac{(x^3y^{-3})^5}{x^{-3}y^2}$.

A. $\frac{x^{15}}{y^{15}}$

B. $\frac{y^{15}}{x^{15}}$

C. $\frac{y^{18}}{x^{17}}$

D. $\frac{x^{18}}{y^{17}}$

Question 7

Simplify $(-5^3)^3$.

A. 3^6

B. -5

C. -5^9

D. -3^6

Question 8

Evaluate:

$$(4x^7 + 7x^9 + 6 - 2x^8) - (-5 - 5x^8 + 9x^9 + 8x^7)$$

- A. $16x^9 - 7x^8 + 12x^7 + 1$
- B. $16x^9 - 7x^8 + 12x^7 + 11$
- C. $-2x^9 + 3x^8 - 4x^7 + 11$
- D. $-2x^9 + 7x^8 + 12x^7 + 1$

Question 9

Evaluate:

$$(5p - 1)(25p^2 + 5p + 1)$$

- A. $125p^3 + 30p^2 - 1$
- B. $125p^3 - 1$
- C. $125p^3 + 1$
- D. $25p^3 - 1$

Question 10

Simplify:

$$\frac{-6x^9 - 20x^6}{-2x^3}$$

- A. $13x^{12}$
- B. $3x^6 - 20x^6$
- C. $-6x^9 + 10x^3$
- D. $3x^6 + 10x^3$

Question 11

Evaluate:

$$(2p + 3)(2p - 3)(p^2 + 6)$$

A. $4p^4 + 24p^3 + 15p^2 + 72p - 54$

B. $4p^4 - 15p^2 - 54$

C. $4p^4 + 15p^2 - 54$

D. $4p^4 - 24p^3 + 15p^2 - 72p - 54$

Question 12

Evaluate:

$$[(2p - 3) + y][(2p + 3) - y]$$

- A. $4p^2 + 4py - y^2 - 9$
- B. $4p^2 + 4py - y^2 - 9$
- C. $4p^2 + 6y - y^2 - 9$
- D. $4p^2 + 6y + 4py - y^2 - 9$

Question 13

Evaluate:

$$\frac{3x^3 - 5x^2 + 2x - 12}{x - 3}$$

- A. $3x^2 + 4x + 14 + \frac{30}{x-3}$
- B. $3x^2 + 4x + 54$
- C. $3x^2 - 14x + 12 + \frac{30}{x-3}$
- D. $3x^2 + 4x + 14 - \frac{12}{x-3}$