

Add and Subtract Polynomials 2

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Add and write the resulting polynomial in descending order of degree.

1) $(7a^5 - 4a^4) + (3a^5 + 9a^4)$ 1) _____
 A) $15a^9$ B) $10a^{10} + 5a^8$ C) $15a^{18}$ D) $10a^5 + 5a^4$

2) $(5n^5 + 3n - 4n^2) + (-3n^2 + 8n^5 + 2n)$ 2) _____
 A) $11n^5 + 2n^2 - 2n$ B) $13n^5 - 7n^2 + 5n$ C) $13n - 7n^5 + 5n^2$ D) $11n^8$

Add.

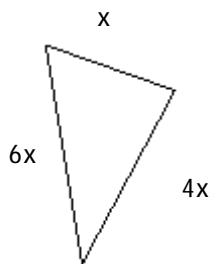
3) $(x^3y^2 + 5x^2y^3 + 2xy + 2) + (x^2y^3 + 3x^3y^2 + 5xy - 3)$ 3) _____
 A) $2x^3y^2 + 8x^2y^3 + 7xy - 1$ B) $4x^3y^2 + 6x^2y^3 + 7xy - 1$
 C) $4x^3y^2 + 6x^2y^3 + 2xy - 1$ D) $2x^3y^2 + 6x^2y^3 + 7xy - 1$

4) $(2r^2s^2 + 3r^2s - 7rs) + (7r^2s^2 - 2r^2s + 7rs - 4)$ 4) _____
 A) $9r^2s^2 + r^2s - 14rs - 4$ B) $9r^2s^2 + 5r^2s - 14rs - 4$
 C) $9r^2s^2 + r^2s - 4$ D) $9r^2s^2 + 5r^2s + 14rs + 4$

5) $(-3x^7 - x^4y^3 + x^3y^4 + 6y^7) + (6x^7 - x^4y^3 - 6x^2y^5 + 4xy^6 - 5y^7)$ 5) _____
 A) $3x^7 + x^3y^4 - 6x^2y^5 + 4xy^6 - y^7$ B) $3x^7 + 2x^4y^3 + x^3y^4 + 6x^2y^5 - 4xy^6 - y^7$
 C) $3x^7 - 2x^4y^3 + x^3y^4 - 6x^2y^5 + 4xy^6 + y^7$ D) $3x^7 - 2x^4y^3 + x^3y^4 + y^7$

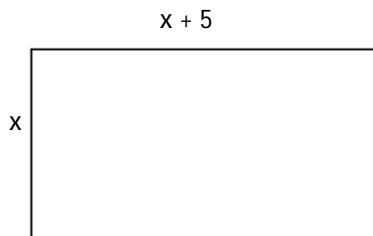
Write an expression for the perimeter in simplest form.

6) 6) _____



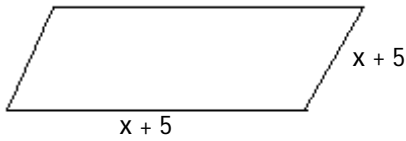
A) $11x$ B) 11 C) $10x$ D) 10

7) 7) _____



A) $x^2 + 5x$ B) $2x + 5$ C) $4x + 10$ D) $8x + 20$

8)



A) $2x + 10$

B) $4x + 10$

C) $x^2 + 10x + 25$

D) $4x + 20$

8) _____

Subtract and write the resulting polynomial in descending order of degree.

9) $(8a^5 + 10a^3) - (13a^5 - 7a^3)$

A) $-5a^5 + 17a^3$

B) $21a^5 + 3a^3$

C) $12a^8$

D) $-5a^5 + 3a^3$

9) _____

10) $(9x^6 + 8x^8 + 6 - 4x^7) - (2 - 9x^7 + 3x^8 + 2x^6)$

A) $5x^8 + 5x^7 + 7x^6 + 4$

B) $11x^8 - 13x^7 + 11x^6 + 4$

C) $11x^8 - 13x^7 + 11x^6 + 8$

D) $5x^8 - 13x^7 + 11x^6 + 8$

10) _____

Subtract.

11) $(3a + 5b - c) - (-6b - 6c - 3d)$

A) $3a + 11b + 7c + 3d$

B) $3a + 11b + 5c + 3d$

C) $3a + 11b + 5c - 3d$

D) $3a + 11b - 5c - 3d$

11) _____

12) $(7m^2n - 3mn + 8mn^2) - (4m^2n + 3mn - 9mn^2)$

A) $3m^4n^2 - 6mn + 17m^2n^4$

B) $3m^2n + 11$

C) $3m^2n - 6mn + 17mn^2$

D) $3m^4n^2 - 6m^2n^2 + 17m^2n^4$

12) _____

13) $(-6x^7 - x^4y^3 + x^3y^4 + 7y^7) - (12x^7 + x^4y^3 - 7x^2y^5 + 3xy^6 + 6y^7)$

A) $-18x^7 + x^3y^4 + 7x^2y^5 - 3xy^6 - y^7$

B) $-18x^7 - 2x^4y^3 + x^3y^4 + 7x^2y^5 - 3xy^6 + y^7$

C) $-18x^7 + 2x^4y^3 + x^3y^4 - 7x^2y^5 + 3xy^6 - y^7$

D) $-18x^7 + x^3y^4 - 7x^2y^5 + 3xy^6 + 13y^7$

13) _____

Solve the problem.

14) A company produces three sizes of a dog house, small, medium, and large. The small dog house sells for \$80, the medium size for \$110, and the large for \$140. The small dog houses cost \$50 each to make, medium \$70 each, and large \$79 each. Let s represent the number of small size dog houses, m represent the number of medium size dog houses and L represent the number of large size dog houses. Write an expression in simplest form for the net profit.

A) $-30s - 40m - 61L$

B) $30s + 40m + 61L$

C) $28s + 43m + 76L$

D) $-28s - 43m - 76L$

14) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Provide an appropriate response.

15) Find and explain the mistake; then work the problem correctly.

$$(2x^3 - 3x^2 + 5x - 1) + (3x^3 - 3x^2 - 2x + 4) = 5x^3 + 6x^2 + 3x + 3$$

15) _____

Answer Key

Testname: ADDING AND SUBTRACTING POLYNOMIALS2

- 1) D
- 2) B
- 3) B
- 4) C
- 5) C
- 6) A
- 7) C
- 8) D
- 9) A
- 10) A
- 11) B
- 12) C
- 13) B
- 14) B
- 15) Explanations will vary. The correct answer is $5x^3 - 6x^2 + 3x + 3$