

## Addition and Subtraction of Polynomials Practice

### Multiple Choice Questions

For each question, four alternative choices are given, of which only one is correct. You have to select the correct alternative and mark it in the appropriate option.

1. Subtract and simplify.  $(2a^2b - 3ab^2 + 5a^2b^2) - (2a^2b^2 + 4a^2b - 5b^2)$

- a.  $-4a^2b - 3ab^2 + 3a^2b^2 + 5b^2$
- b.  $-2a^2b - 5ab^2 + 3a^2b^2 + b^2$
- c.  $-5a^2b - 2ab^2 + 3a^2b^2 + 5b^2$
- d.  $-2a^2b - 3ab^2 + 3a^2b^2 + 5b^2$

2. Subtract  $2ab$  from  $-2ab$ .

- a.  $4ab$
- b.  $ab$
- c.  $2ab$
- d.  $-4ab$

3. If the length of a rectangle in terms of  $x$  is  $3x^2 + 7x + 9$ , and its width is  $3x + 6$ , what is the perimeter of this rectangle? Don't leave any spaces in your solution.

Perimeter: \_\_\_\_ units

- a.  $4(3x^2+20x+15)$
- b.  $2(3x^2+10x+15)$
- c.  $3(3x^2+10x+15)$
- d.  $2(3x^2+10x+30)$

4. If the length of a rectangle in terms of  $x$  is  $5x^2 + 3x + 6$ , and its width is  $7x + 9$ , what is the perimeter of this rectangle? Don't leave any spaces in your solution.

Perimeter: \_\_\_\_ units

- a.  $20x^2+20x+30$
- b.  $10x^5+20x+30$
- c.  $10x^2+2x+3$
- d.  $10x^2+20x+30$

5. Find the difference between the two polynomials by subtracting vertically

$$(7x^3 - 5x + 8) - (4x^3 - 2x + 1)$$

- a.  $3x^3 + 3x - 7$
- b.  $3x^3 - 7x - 7$
- c.  $3x^3 - 3x + 7$
- d.  $3x^3 - 7x + 7$

6. Find the sum of the two polynomials by adding horizontally

$$(2x^3 + 3x^2 - 5) + (3x^2 + 7)$$

- a.  $2x^3 + 6x^2 + 2$
- b.  $2x^3 + 6x^2 - 12$
- c.  $2x^3 + 2$
- d.  $8x^2 + 2$

7. Find the sum of the two polynomials by adding horizontally

$$(5x^2 - 3) + (8x^2 - 1)$$

- a.  $13x^2 - 4$
- b.  $13x^2 + 2$
- c.  $-3x^2 + 2$
- d.  $3x^2 - 4$

8. Find the sum of the two polynomials by adding horizontally

$$(7x^2 - 1) + (2x^2 + 7)$$

- a.  $9x^2 + 6$
- b.  $2x^3 + 6x^2 - 12$
- c.  $8x^2 + 2$
- d.  $2x^3 + 2$

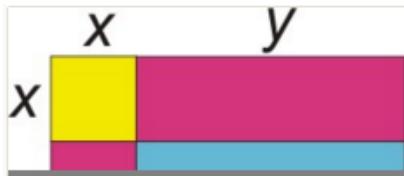
9. Add and simplify.  $(x - 3x_2)(5x - 3) + (8x - 1)$

- a.  $-2x + 3$
- b.  $-12x + 4$
- c.  $-7x + 2$
- d.  $2x - 8$

10. Find the difference:  $(2r^2 + 6r + 7) - (3r^2 + 5r + 8)$

- a.  $r^2 + r + 1$
- b.  $r^2 + r - 1$
- c.  $r^2 - r - 1$
- d.  $-r^2 + r - 1$

### Additional ways to learn



READ

Addition and Subtraction of Polynomials

VIDEO

Intro to Polynomials in One Variable



PLIX

Add and Subtract Polynomials: Sliders