Operations with Polynomials

Emphasis on Adding Polynomials

Add each of the following:

1. $(8p^4 + 8 + 2p^3) + (3p^4 - 4p^3 - 3)$

$8p^4 + 8 + 2p^3 + 3p^4 - 4p^3 - 3$

$11p^4 - 2p^3 + 5$

2. $(4 - 3x^2 - 6x^3) + (6x^3 + 6 - 3x^4)$

$4 - 3x^2 - 6x^3 + 6x^3 + 6 - 3x^4$

$-3x^4 - 3x^2 + 10$

3. $(6 + 3x^3 + 4x) + (x^4 + 4x + x^3)$

$6 + 3x^3 + 4x + x^4 + 4x + x^3$

$x^4 + 4x^3 + 8x + 6$

4. $(2v^4 + 3 - 7v^3) + (2v^3 - 7v^4 + 6)$

$2v^4 + 3 - 7v^3 + 2v^3 - 7v^4 + 6$

$-5v^4 - 5v^3 + 9$

5. $(8b^2 - 8b - 2) + (6b + 8b^2 + 6)$

$8b^2 - 8b - 2 + 6b + 8b^2 + 6$

$16b^2 - 2b + 4$

6. $(4m^4 - 6m^2 - 7) + (8m^2 + 2 - 4m^4)$

$4m^4 - 6m^2 - 7 + 8m^2 + 2 - 4m^4$

$2m^2 - 5$

7. $(3a - 4 - 8a^3) + (7 - 3a - 7a^3)$

$3a - 4 - 8a^3 + 7 - 3a - 7a^3$

$-15a^3 + 3$

8. $(8 + 7n^2 + 3n) + (3n^4 + n^2 - 6)$

$8 + 7n^2 + 3n + 3n^4 + n^2 - 6$

$3n^4 + 8n^2 + 3n + 2$

9. $(5 + 7x^4 - x^2) + (5x^3 - 3 + 4x^2)$

$5 + 7x^4 - x^2 + 5x^3 - 3 + 4x^2$

$7x^4 + 5x^3 + 3x^2 + 2$

10. $(7p + 5p^3 + 5) + (2p^3 - 6 + 7p)$

$7p + 5p^3 + 5 + 2p^3 - 6 + 7p$

$7p^3 + 14p - 1$

11. $(5n + 3n^4 - 8) + (4n^3 - 3n - n^4)$

$5n + 3n^4 - 8 + 4n^3 - 3n - n^4$

$2n^4 + 4n^3 + 2n - 8$

12. $(m + 5m^3 - 5m^4) + (m^4 - 3 + 4m^3)$

$m + 5m^3 - 5m^4 + m^4 - 3 + 4m^3$

$-4m^4 + 9m^3 + m - 3$

13. $(8a^3 - 3 - 4a^4) + (5 - 3a^3 - 6a^4)$

$8a^3 - 3 - 4a^4 + 5 - 3a^3 - 6a^4$

$-10a^4 + 5a^3 + 2$

14. $(2r^4 - 2r - 1) + (6 - 6r - 7r^4)$

$2r^4 - 2r - 1 + 6 - 6r - 7r^4$

$-5r^4 - 8r + 5$

15. $(a + 2a^3 + 7a^4) + (8 - 4a^3 - 4a)$

$a + 2a^3 + 7a^4 + 8 - 4a^3 - 4a$

$7a^4 - 2a^3 - 3a + 8$

16. $(7b^3 - 2b^4 + 4b^2) + (8b^3 - 2b^4 + 5b^2)$

$7b^3 - 2b^4 + 4b^2 + 8b^3 - 2b^4 + 5b^2$

$-4b^4 + 15b^3 + 9b^2$

17. $(2x^4 + 2x - 5x^2) + (5x^4 + 7x + 7x^2)$

$2x^4 + 2x - 5x^2 + 5x^4 + 7x + 7x^2$

$7x^4 + 2x^2 + 9x$

18. $(8x^2 - 2 + 2x^3) + (4x^3 + x^2 + 2)$

$8x^2 - 2 + 2x^3 + 4x^3 + x^2 + 2$

$6x^3 + 9x^2$

19. $(6n^4 + 4n^2 + 8n^3) + (6n^2 + 6n^4 - 5)$

$6n^4 + 4n^2 + 8n^3 + 6n^2 + 6n^4 - 5$

$12n^4 + 8n^3 + 10n^2 - 5$

20. $(4x - 7 - 5x^4) + (2 - 2x^4 + 3x)$

$4x - 7 - 5x^4 + 2 - 2x^4 + 3x$

$-7x^4 + 7x - 5$