

## Adding and subtracting polynomials

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Name \_\_\_\_\_

Date \_\_\_\_\_

**Simplify each expression.**

1)  $(2v^3 + v^2 + 4) - (2v^2 - 6v^3 + 3)$

2)  $(2 + k^4 + 4k^3) - (4k^4 + 2k^3 - 1)$

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

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

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

6)  $(5m^2 + 8m^3 - 8m^4) - (2m^2 - 5m^3 + 4m^4)$

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

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

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

$$10) (n + 3n^3 + 5) - (2n^2 - 4 - 5n)$$



$$11) (4p^4 + 8 - 7p) + (7 - 2p - 6p^4)$$

$$12) (7p^4 - 6 - 7p^2) - (p^3 - 4p^4 - 4)$$

## Answers to

- |                               |                              |                            |
|-------------------------------|------------------------------|----------------------------|
| 1) $8v^3 - v^2 + 1$           | 2) $-3k^4 + 2k^3 + 3$        | 3) $-13a^3 + 6a^2 + 2$     |
| 4) $-8x^4 + x^3 + 11x^2 + 7x$ | 5) $-4a^4 - 6a^3 - 3$        | 6) $-12m^4 + 13m^3 + 3m^2$ |
| 7) $-6n^4 + 6n^2 + 4n$        | 8) $n^4 + n^2 - 14n$         | 9) $-3x^2 + 13$            |
| 11) $-2p^4 - 9p + 15$         | 12) $11p^4 - p^3 - 7p^2 - 2$ | 10) $3n^3 - 2n^2 + 6n + 9$ |

