

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Adding and Subtracting Polynomials

**Simplify each expression.**

1)  $(5k^3 - 9k^2 - 2k) + (8k^4 - 3k^2 + k) - (4k^3 - 6k^4 + 7k^2)$

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

2)  $(6g^2 - 2g^4) - (5g^2 + 4g^3) - (9g^3 + 7g^4 - 8g^2)$

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

3)  $(5 - 6r^3) - (9r^5 + 8 - 2r^3) - (7 + 3r)$

8)  $(g^2 + 5g^5 - 4) + (7g^2 - 2 + 8g^5) - (9g^2 - 6g - 3)$

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

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

5)  $(2 - 5z^3 - 9z^4) - (7z^4 + 4) + (8z^3 + 3z^2)$

10)  $(7x + 4x^4) - (5x + 8x^4 - 6)$



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**Simplify each expression.**

1)  $(5k^3 - 9k^2 - 2k) + (8k^4 - 3k^2 + k) - (4k^3 - 6k^4 + 7k^2)$

$$14k^4 + k^3 - 19k^2 - k$$

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

$$11b^4 - 6b^2 + 15b - 4$$

2)  $(6g^2 - 2g^4) - (5g^2 + 4g^3) - (9g^3 + 7g^4 - 8g^2)$

$$-9g^4 - 13g^3 + 9g^2$$

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

$$2n^5 + n^3 + 3n - 1$$

3)  $(5 - 6r^3) - (9r^5 + 8 - 2r^3) - (7 + 3r)$

$$-9r^5 - 4r^3 - 3r - 10$$

8)  $(g^2 + 5g^5 - 4) + (7g^2 - 2 + 8g^5) - (9g^2 - 6g - 3)$

$$13g^5 - 1g^2 + 6g - 3$$

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

$$-3s^4 - 6s^2 - 8s + 11$$

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

$$6q^4 + 10q^3 - 7q^2 - 5$$

5)  $(2 - 5z^3 - 9z^4) - (7z^4 + 4) + (8z^3 + 3z^2)$

$$-16z^4 + 3z^3 + 3z^2 - 2$$

10)  $(7x + 4x^4) - (5x + 8x^4 - 6)$

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

