

Add/Subtract Polynomial Practice

Date _____ Period _____

Simplify each sum.

1) $2 + 8x + 4 - 8x$

2) $3 + 7x + 5 + 5x$

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

4) $8 + 3x^3 + 5 - 8x^3$

5) $(5x^4 - 4x^3) + (x^4 - 4x^3)$

6) $(3m^4 + 7) + (2 - 5m^4)$

$$7) (n^3 + 5n) + (6n^2 - 2n)$$

$$8) (3 - 5a^3) + (6 - 5a^3)$$

$$9) (6 + 5n^3) + (1 - n^4 - 7n^3)$$

$$10) (7r^3 - 4) + (6 + 7r + 2r^3)$$

$$11) (2v + 5v^4) + (2v^4 - v^3 - 2v)$$

$$12) (7n^2 - 3) + (6n^2 - 3 + n^4)$$

Simplify each difference.

$$13) (7m^3 + 4m^2) - (4m^4 + 8m^2)$$

$$14) (r^2 - 8r^3) - (8r^2 - 3r^3)$$

$$15) (r^2 + 7r^4) - (4r^2 - 7r^4)$$

$$16) (5n^3 + 2n^2) - (8n^3 + 8n^2)$$

$$17) (8k^2 - 8) - (4 - 7k - 2k^2)$$

$$18) (5 - 2k^2) - (6 - k^2 - 8k^3)$$

$$19) (2 + 3b^3) - (4 + 3b^4 - b^3)$$

$$20) (6x^2 + 3x^3) - (6x^2 + 6x^4 + 6x^3)$$

Simplify each expression.

$$21) (5p^2 - 5p^3) + (4p^2 - 2p^4 - 8p^3)$$

$$22) (6 - 7k^3) + (4k - 3k^3 - 6)$$

$$23) (6r^2 - 3r^3) - (4r^3 + 4r^2 - 6)$$

$$24) (2x^2 - 3x^4) + (6x - x^4 + 2x^2)$$

$$25) (7k^4 + 8k) - (5k^4 + 7k - 3k^2)$$

$$26) (7 - 4x^4) - (2x^4 - 3x - 1)$$

$$27) (8k^4 + 8) + (5 + 6k^4 + 2k^2)$$

$$28) (5m^4 - 3m) - (2m^4 - 8m^2 + 7m)$$

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Simplify each sum.

1) $2 + 8x + 4 - 8x$

6

2) $3 + 7x + 5 + 5x$

$12x + 8$

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

$3x^3 + 9x^2$

4) $8 + 3x^3 + 5 - 8x^3$

$-5x^3 + 13$

5) $(5x^4 - 4x^3) + (x^4 - 4x^3)$

$6x^4 - 8x^3$

6) $(3m^4 + 7) + (2 - 5m^4)$

$-2m^4 + 9$

$$7) (n^3 + 5n) + (6n^2 - 2n)$$

$$n^3 + 6n^2 + 3n$$

$$8) (3 - 5a^3) + (6 - 5a^3)$$

$$-10a^3 + 9$$

$$9) (6 + 5n^3) + (1 - n^4 - 7n^3)$$

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

$$10) (7r^3 - 4) + (6 + 7r + 2r^3)$$

$$9r^3 + 7r + 2$$

$$11) (2v + 5v^4) + (2v^4 - v^3 - 2v)$$

$$7v^4 - v^3$$

$$12) (7n^2 - 3) + (6n^2 - 3 + n^4)$$

$$n^4 + 13n^2 - 6$$

Simplify each difference.

$$13) (7m^3 + 4m^2) - (4m^4 + 8m^2)$$

$$-4m^4 + 7m^3 - 4m^2$$

$$14) (r^2 - 8r^3) - (8r^2 - 3r^3)$$

$$-5r^3 - 7r^2$$

$$15) (r^2 + 7r^4) - (4r^2 - 7r^4)$$
$$14r^4 - 3r^2$$

$$16) (5n^3 + 2n^2) - (8n^3 + 8n^2)$$
$$-3n^3 - 6n^2$$

$$17) (8k^2 - 8) - (4 - 7k - 2k^2)$$
$$10k^2 + 7k - 12$$

$$18) (5 - 2k^2) - (6 - k^2 - 8k^3)$$
$$8k^3 - k^2 - 1$$

$$19) (2 + 3b^3) - (4 + 3b^4 - b^3)$$
$$-3b^4 + 4b^3 - 2$$

$$20) (6x^2 + 3x^3) - (6x^2 + 6x^4 + 6x^3)$$
$$-6x^4 - 3x^3$$

Simplify each expression.

$$21) (5p^2 - 5p^3) + (4p^2 - 2p^4 - 8p^3)$$
$$-2p^4 - 13p^3 + 9p^2$$

$$22) (6 - 7k^3) + (4k - 3k^3 - 6)$$
$$-10k^3 + 4k$$

$$23) (6r^2 - 3r^3) - (4r^3 + 4r^2 - 6)$$
$$-7r^3 + 2r^2 + 6$$

$$24) (2x^2 - 3x^4) + (6x - x^4 + 2x^2)$$
$$-4x^4 + 4x^2 + 6x$$

$$25) (7k^4 + 8k) - (5k^4 + 7k - 3k^2)$$
$$2k^4 + 3k^2 + k$$

$$26) (7 - 4x^4) - (2x^4 - 3x - 1)$$
$$-6x^4 + 3x + 8$$

$$27) (8k^4 + 8) + (5 + 6k^4 + 2k^2)$$
$$14k^4 + 2k^2 + 13$$

$$28) (5m^4 - 3m) - (2m^4 - 8m^2 + 7m)$$
$$3m^4 + 8m^2 - 10m$$