

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

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

## Polynomial Operations Worksheet

Simplify each expression

①  $(5y + y^4) - (3y^4 + 4y)$

\_\_\_\_\_

②  $(8m^2 - 2mn - 7n^2)(6m + 3n)$

\_\_\_\_\_

③  $(27w^5x^3y^2 - 12w^3x^2y) \div 3w^2xy$

\_\_\_\_\_

④  $(12x^2 - 6x^3 - 3 - 9x) \div (3x - 3)$

\_\_\_\_\_

⑤  $(s^3 + 10s^2 + 29s + 60) \div (s + 7)$

\_\_\_\_\_

⑥  $(2x^4 + x) + (7x - 2x^2) - (4x - 6x^4 + 5x^2)$

\_\_\_\_\_

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## Polynomial Operations Worksheet

Simplify each expression

①  $(5y + y^4) - (3y^4 + 4y)$

$$\underline{-2y^4 + y}$$

②  $(8m^2 - 2mn - 7n^2)(6m + 3n)$

$$\underline{48m^3 + 12m^2n - 48mn^2 - 21n^3}$$

③  $(27w^5x^3y^2 - 12w^3x^2y) \div 3w^2xy$

$$\underline{9w^3x^2y - 4wx}$$

④  $(12x^2 - 6x^3 - 3 - 9x) \div (3x - 3)$

$$\underline{-2x^2 + 2x - 1 - \frac{2}{x-1}}$$

⑤  $(s^3 + 10s^2 + 29s + 60) \div (s + 7)$

$$\underline{s^2 + 3s + 8 + \frac{4}{s+7}}$$

⑥  $(2x^4 + x) + (7x - 2x^2) - (4x - 6x^4 + 5x^2)$

$$\underline{8x^4 - 7x^2 + 4x}$$