

Name: .....

Date: ..... Score: .....

## Addition and Subtraction of Algebraic Expressions

Add the given expressions

①  $(3x^3 + 2x - 5) + (2x^2 + x + 9)$

②  $(6x + 6) + (-2 - 4x)$

③  $(y^3 + 20y + 1) + (17y^3 + 2y^2 - y + 21)$

④  $(6r^2 + 5) + (-5r^2 + 3)$

Subtract the given expressions

⑤  $(-2 - 5q) - (-4q - 2)$

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

⑦  $(60x^2 - 30x + 45) - (20x^2 + 18x - 12)$

⑧  $(12x^2 + 2x + 16) - (4x^2 + x + 2)$

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## Addition and Subtraction of Algebraic Expressions

### Answers

①  $(3x^3 + 2x - 5) + (2x^2 + x + 9)$

②  $(6x + 6) + (-2 - 4x)$

$3x^3 + 2x^2 + 3x + 4$

$2(x + 2)$

③  $(y^3 + 20y + 1) + (17y^3 + 2y^2 - y + 21)$

④  $(6r^2 + 5) + (-5r^2 + 3)$

$18y^3 + 2y^2 + 19y + 22$

$r^2 + 8$

⑤  $(-2 - 5q) - (-4q - 2)$

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

$-q$

$3x^3 + 13x^2 + x - 2$

⑦  $(60x^2 - 30x + 45) - (20x^2 + 18x - 12)$

⑧  $(12x^2 + 2x + 16) - (4x^2 + x + 2)$

$40x^2 - 48x + 57$

$8x^2 - x + 14$