

4-1 Operations with Polynomials

Simplify.

9. $(x^2 - 5x + 2) - (3x^2 + x - 1)$

ANSWER:

$$-2x^2 - 6x + 3$$

10. $(3a + 4b) + (6a - 6b)$

ANSWER:

$$9a - 2b$$

11. $2a(4b + 5)$

ANSWER:

$$8ab + 10a$$

12. $3x^2(2xy - 3xy^2 + 4x^2y^3)$

ANSWER:

$$6x^3y - 9x^3y^2 + 12x^4y^3$$

CCSS REGULARITY Simplify.

28. $(6a^2 + 5a + 10) - (4a^2 + 6a + 12)$

ANSWER:

$$2a^2 - a - 2$$

29. $(7b^2 + 6b - 7) - (4b^2 - 2)$

ANSWER:

$$3b^2 + 6b - 5$$

30. $3p(np - z)$

ANSWER:

$$3np^2 - 3pz$$

31. $4x(2x^2 + y)$

ANSWER:

$$8x^3 + 4xy$$

Simplify.

52. $\frac{1}{4}g^2(8g + 12h - 16gh^2)$

ANSWER:

$$2g^3 + 3g^2h - 4g^3h^2$$

53. $\frac{1}{3}n^3(6n - 9p + 18np^4)$

ANSWER:

$$2n^4 - 3n^3p + 6n^4p^4$$

54. $x^{-2}(x^4 - 3x^3 + x^{-1})$

ANSWER:

$$x^2 - 3x + \frac{1}{x^3}$$