

Unit 2 Polynomials Review

Simplify each expression.

1) $(-9x^4 - 11x^2 - 13x) - (-5x^4 + x + x^2)$

2) $(-2k^3 - 11 + 12k^5) + (k^5 + 14 - 5k^3)$

3) $(9 + x^2 - 7x^5) + (14 + 5x^5 + 13x^2)$

4) $(n^2 - n^5 + 9n^4) + (-7n^4 + 7n^5 - 13n^2)$

5) $(-10n^5 + 4n^2 + 6n) - (-9n - 6n^5 + 9n^2)$

Find each product.

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

7) $(-6k + 8)(5k + 6)$

8) $(6p + 4)(5p + 4)$

9) $(5r - 2)^2$

10) $-7x^2(x^2 + 8x - 2)$

11) $2x(-2x^2 + x + 6)$

Name each polynomial by degree and number of terms.

12) $-6r^2 - 4r$

13) $7p^3 - 4p^2 + p$

Simplify.

14) $2v^3 \cdot v^3$

15) $(x^3 \cdot 3x^3)^2$

Simplify. Your answer should contain only positive exponents.

16) $\left(\frac{v^3}{3v^3 \cdot v}\right)^2$

17) $\left(\frac{2x}{3x^3 \cdot x^3}\right)^0$