

Polynomial Arithmetic

Block: _____ Mark Out Of 16 _____

Simplify each expression.

1) $-2 - 4n^3 + 5n - 2 + 5n + 4n^3$

2) $m - 8m^3 + 8 - 5 - 6m^4 + 8m$

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

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

5) $(8r + 7 + r^4) + (5 + 4r^4 - 2r)$

6) $(-2x^2 - x - x^4) - (-5x^4 + 6x^3 + 3x^2)$

7) $(5x^4y^2 - 5y + x^4) - (8y + 3x^4 + 4x^4y^2)$

8) $(-7xy^4 - x^4y - 4y) + (4x^4y - 7y + 7xy^4)$

Find each product.

9) $(-7r + 2)(4r + 6)$

10) $(-3p - 2)(-2p + 6)$

11) $(5k + 5)(-8k + 3)$

12) $(6n + 2)(4n + 6)$

13) $(-5n + 2)^2$

14) $(6a - 3)(6a + 3)$

15) $(8x + 1)^2$

16) $(4x + 1)(4x - 1)$