

Polynomial Arithmetic

Block: ____ Mark Out Of 23 ____

Simplify each expression. Write answer in descending powers of the variable. 1 mark each

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

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

3) $(-5 - 8n) + (2 - 6n)$

4) $(6p - 6p^2) - (2p^2 - 7p)$

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

6) $(-6m - 4m^2 - m^4) - (m - 6m^4 + 8m^2)$

7) $(3 - 7x^2 + 8x) - (3x^2 - x + 6) + (6x^2 + 2x + 2)$

Find each product. Write answer in descending powers of the variable. 2 marks each

8) $(3p + 1)(3p + 4)$

9) $(4p - 5)(5p + 8)$

10) $(5k + 5)(-8k + 3)$

11) $(3p - 4)(5p - 8)$

12) $(7p - 1)^2$

13) $(6n - 2)(6n + 2)$

14) $(4x + 3)(x^2 + 4x + 2)$

15) $(6m + 1)(m^2 - m - 7)$