

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

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### Basic Polynomial Operations

**Name each polynomial by its degree and number of terms.**

1)  $5dq^3 - 2y^6 + 7n^7h^2$

2)  $6k^a + k^2$

3)  $-9nh^3 + 5c^6 + 6r^4g^7 + 2p^3d^7 - 7c^2r^4$

4)  $3sr^6x$

**Simplify each expression.**

5)  $(9 + 2z^2) - (5z^6 + 6 + 8z^2) - (4 - 7z - 3z^6)$

6)  $(7x^4 - 5x^2 - 9x) - (3x^2 - 4x) + (2 + 8x^3 + 6x^4)$

7)  $(5r - 8r^4) - (2r + 6r^4 + 7)$

8)  $(2c^3 - 3c^5) - (6c^6 + 9c^3)$

**Multiply to find each product.**

9)  $(7p^2 + 3p)(9p^2 + 2p + 5)$

10)  $(n^2 + 3n + 2)(n^2 + 8n + 4)$

11)  $(d^2 + 2)(d^2 + 9d + 4)$

12)  $(5s^2 + 8)(7s^2 + 9)$

