

## Polynomial Review

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify each expression.**

1)  $(5v^2 + 2v + 2v^4) - (4v^4 + 2v^2 - 6v)$

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

**Simplify each sum.**

3)  $(8n^2 + 8 + 5n^4) + (6n^2 - 8 + 4n^4)$

**Find each product.**

4)  $(3x - 4)(7x - 4)$

5)  $(7b + 1)(8b - 5)$

6)  $(5k + 4)(8k + 3)$

7)  $(7x + 2)(5x + 7)$

8)  $(8p + 1)(3p^2 - 8p - 3)$

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

10)  $(2k + 3)^2$

11)  $(5 + 2m)^2$

12)  $(5r - 6)(5r + 6)$

13)  $(4x + 5)(4x - 5)$

14)  $(1 + 5x)(1 - 5x)$

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

15)  $-9x^3 - 4x^4 + 9x$

16)  $9x^2 - 10x^4 + 4x + 10x^5$

17)  $-5x^5 - x^4$

18)  $10n^2$