

Operations with Polynomials 5

Date _____ Period _____

Simplify each expression.

1) $(2v^3 + 3v^2 + 8v^4) + (2 - 4v^2 + 5v^4)$

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

Find each product.

3) $(5b + 3)(5b^2 + 2b + 3)$

4) $(7m - 3)(4m^2 - 5m - 1)$

5) $(4x - 6y)(4x + 6y)$

6) $(4x - 5y)^2$

Divide.

7) $(p^3 - 13p^2 + 34p + 31) \div (p - 5)$

8) $(k^3 + 2k^2 - 23k - 32) \div (k + 5)$

9) $(36n^3 + 18n^2 - 16n - 15) \div (6n + 4)$

10) $(5m^3 - 24m^2 + 21m - 13) \div (5m - 4)$

Answers to Operations with Polynomials 5 (ID: 1)

- 1) $13v^4 + 2v^3 - v^2 + 2$ 2) $-5n^4 - 3n^3 - n + 1$ 3) $25b^3 + 25b^2 + 21b + 9$
4) $28m^3 - 47m^2 + 8m + 3$ 5) $16x^2 - 36y^2$ 6) $16x^2 - 40xy + 25y^2$
7) $p^2 - 8p - 6 + \frac{1}{p-5}$ 8) $k^2 - 3k - 8 + \frac{8}{k+5}$ 9) $6n^2 - n - 2 - \frac{7}{6n+4}$
10) $m^2 - 4m + 1 - \frac{9}{5m-4}$