Algebra 2 Name_____

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Long Division of Polynomials

Date_____ Period____

Divide.

1) $(5a^4 + 2a^3 + 2a^2) \div 4a^2$

2) $(4v^3 + 27v^2 + 5v) \div 9v^3$

3) $(r^4 + 50r^3 + 50r^2) \div 10r^3$

4) $(p^3 + 4p^2 + 3p) \div 8p^2$

5) $(9n^2 + 36n^3 + 2n^4) \div 9n^2$

6) $(18p^3 + 5p^2 + 9p) \div 9p$

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State if the given binomial is a factor of the given polynomial.

7) $(5p^3 + 45p^2 + 77p + 50) \div (p + 7)$

8) $(110m + 45 + 80m^2 + 80m^3) \div (10m + 5)$

Divide.

9) $(3n^3 + 7n^2 - 15n + 6) \div (3n - 2)$

10) $(3x^4 + 14x^3 - 14x^2 - 101x - 56) \div (3x + 8)$

11) $(-72a + 12 + 48a^2 + 6a^3) \div (-6 + 6a)$

12) $(-33n - 64 + 3n^3 + 24n^2) \div (-6 + 3n)$

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