Algebra 2 Name_____

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Remainder Theorem

Date_____ Period____

Evaluate each function at the given value.

1) $f(n) = -4n^3 - 13n^2 - 7n - 7$ at $n = -3$

2) $f(x) = -4x^4 - 18x^3 + 10x^2 - 4x - 19$ at $x = -5$

3) $f(m) = m^5 - 4m^4 - 4m^3 + m^2 - 33m + 26$ at $m = 5$

4) $f(m) = 2m^3 + 11m^2 - 5m + 14$ at $m = -6$

5) $f(x) = x^5 - 10x^4 + 21x^3 + 7x^2 + 18x + 5$ at $x = 4$

6) $f(n) = n^4 - 5n^3 - 6n^2 + 6n - 44$ at $n = 6$

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Factor each. One factor has been given.

7) $f(x) = x^3 + 8x^2 + 21x + 18;\ x + 3$

8) $f(x) = x^3 - x^2 - 25x + 25;\ x + 5$

9) $f(x) = x^3 - 4x^2 + x + 6;\ x - 3$

10) $f(x) = x^4 - 2x^3 - 11x^2 + 12x;\ x + 3$

11) $f(x) = x^4 + 3x^3 - x - 3;\ x + 3$

12) $f(x) = x^4 - 2x^3 + 64x - 128;\ x - 2$

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