Algebra 2 Name_____

Factoring Higher Order Polynomials

Date_____ Period____

Factor each.

1) $y = 3x^4 + 17x^2 - 6$

2) $y = 2x^4 - 3x^2 - 27$

3) $y = 2x^4 - 5x^2 - 12$

4) $y = 3x^4 - 35x^2 + 72$

5) $y = 2x^4 + 13x^2 - 7$

6) $y = 3x^4 - 14x^3 + 15x^2$

Factor each using imaginary numbers.

7) $y = x^4 + 7x^2 - 18$

8) $y = x^4 + x^2 - 12$

9) $y = x^4 - 7x^2 - 8$

10) $y = x^4 - 2x^2 - 24$

11) $y = x^4 + 14x^2 + 45$

12) $y = x^4 - x^2 - 2$