Name_____ Period _____ Date_____

Regular Advanced Algebra with Trig, Glawe

Factoring Trinomials and Difference of Two Squares

Polynomials that cannot be factored at all should be considered *prime*. Find the complete factorization of each polynomial:

1.) $x^2 + 8x + 12$

2.) $a^2 + 15a + 56$

3.) $x^2 + 3x + 2$

4.) $5x + x^2 + 6$

5.) $b^2 - 7b + 12$

6.) $x^2 + 16x + 64$

7.) $3x - 4 + x^2$

8.) $x^2 - 4x - 21$

9.) $x^2 + 3x + 10$

10.) $5 + x^2 - 6x$

11.) $9x^2 - 25$

12.) $9x^2 - 100y^2$

13.) $169a^2 - 1$

14.) $64x^2 + 25$

15.) $x^2 + 10x + 25$

16.) $a^2x^2 - b^2$

17.) $z^2 - 26z + 169$

18.) $c^2 - 9c - 18$

19.) $a^4 - a^2 - 12$

20.) $(t+3)^2 - 16$