Name_____ Date_____ Period_____

FACTORING SPECIAL PATTERNS WORKSHEET

Special Patterns:

Difference of Two Squares: $a^2 - b^2 = (a+b)(a-b)$

Perfect Square Trinomial: $a^2 + 2ab + b^2 = (a+b)^2$

$a^2 - 2ab + b^2 = (a-b)^2$

Don't forget the first rule of factoring! Factor out the GCF.

Factor the following polynomials, if possible:

1. $w^2 + 14w + 49$
2. $y^2 - 100$
3. $2x^2 - 72$
4. $9 - x^2$
5. $4x^2 - 12x + 9$
6. $4a^2 - 16$
7. $5b^2 + 10b + 5$
8. $x^2 + 64$
9. $27a^3 + 18a^2 + 3a$
10. $50x^2 - 98x$
11. $4a^2 - 20a + 25$
12. $8x^2 - 49$
13. $75 - 3y^2$
14. $9t^2 - 30t + 25$
15. $16x^2 + 48x + 36$
16. $x^2 - 6x - 9$
17. $64c^2 - 121$
18. $4x^2 + 28x + 49$