Name _____ Date _____ Pd __

**7.6 Factoring $ax^2 + bx + c$ DAY FOUR WS**

*1 – 18: Factor each expression completely. Show all work to earn full credit.*

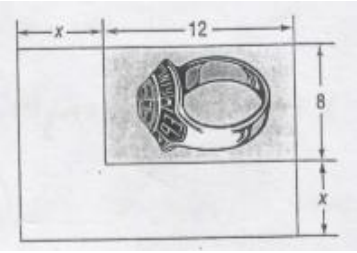
1. $3p^2 – 2p – 5$
2. $2n^2 + 3n – 9$
3. $3n^2 – 8n + 4$
4. $5n^2 + 19n + 12$
5. $2v^2 + 11v + 5$
6. $2n^2 + 5n + 2$
7. $7a^2 + 53a + 28$
8. $9k^2 + 66k + 21$
9. $15n^2 – 27n – 6$
10. $5x^2 – 18x + 9$
11. $4n^2 – 15n – 25$
12. $4x^2 - 35x + 49$
13. $4n^2 – 17n + 4$
14. $6x^2 + 7x – 49$
15. $6x^2 + 37x + 6$
16. $-6a^2 – 25a – 25$

17. $6n^2 + 5n - 6$

18. $16b^2 + 60b - 100$

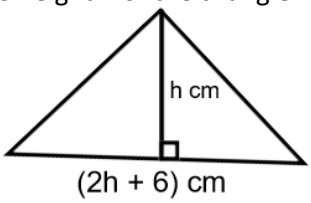
**19 – 23: Real-World Problems**

19. YEARBOOK DESIGN. A sponsor for the school yearbook has asked that the length and width of a photo in their ad be increased by the same amount in order to double the area of the photo. If the photo was originally 12 centimeters wide by 8 centimeters long, what should the new dimensions of the enlarged photo be?




20. NUMBER THEORY. Find two consecutive even integers whose product is 168.

21. GEOMETRY. The triangle has an area of 40 square centimeters. Find the height *h* of the triangle.




22. GEOMETRY. A rectangle with an area of 35 square inches is formed by cutting off strips of equal width from a rectangular piece of paper.

    a. Find the width of each strip.

    b. Find the dimensions of the new rectangle.