

## 8.6 HW

Date \_\_\_\_\_ Algebra \_\_\_\_\_

**Factor each of the polynomials COMPLETELY!**

1)  $3n^2 - 24n + 45$

2)  $3b^2 - 12b$

3)  $-7n^2 - 49n - 35$

4)  $4k^2 - 4$

5)  $81z^4 - 16$

6)  $12p^2 + 75$

7)  $3v^2 - 20v + 25$

8)  $-30x^9 + 70x^8 - 30x^5 + 70x^2$

9)  $a^2 + 8a + 16$

10)  $2r^2 + 29r + 90$

11) The length of a rectangle is  $x^2 + 2x$  and the width is  $-3x + 1$ . Express the area of the box as polynomial:

12) The area of a rectangle is  $3a^2 - 8x^2 + 4$  and the length is  $a - 2$ . Express the width of the rectangle as a polynomial: