Lesson 8-7 Factoring Special Cases

The X-box method has helped us factor both trinomials that have a leading coefficient of 1 and those that do not. In this lesson, we will learn how to to factor some unusual polynomial expressions that are often called "special cases." When we use the X-box method, you will see that "special" cases aren't really very special at all.

Use the X-box method to factor completely:

1. $x^2 + 0x - 16$	2. $9x^2 - 4$
3. $x^2 + 4x + 4$	4. $x^2 - 10x + 25$
5. $25x^2 - 1$	6. $4x^2 + 12x + 9$
7. The area of a square is $4x^2 + 20x + 25$. How long is each side of the square?	8. The area of a square is $9y^2 - 6y + 1$. How long is each side of the square?

Factor completely. Remember to look for common factors first!

9. $3n^2 - 27$	10. $10m^2 + 100m + 250$
11. $x^2y + 4xy + 4y$	12. $200z^4 + 80z^3 + 8z^2$
13. $-9x^3 + 100x$	14. $y^4 - 12y^3 + 3y^2$
15. $9 - 25x^2$	16. $36 - 16y^2$