

## Section 8.4 Special Factoring

Main Concepts:

**Factoring Difference of Two Squares**  
**Factoring Perfect Square Trinomials**

---

Test Yourself!

Factor the following completely. Write “prime” if they do not factor.

1)  $a^2 - 25$

2)  $64 - y^2$

3)  $16y^2 - 81$

4)  $75y^4 - 12y^2$

5)  $x^2 - \frac{9}{64}$

6)  $y^2 + 81$

7)  $4a^2 - 20a + 25$

8)  $(x^2 - 4x + 4) - z^2$

9)  $2x^4 - 128x^2$

10)  $x^3y - 4xy$

Answers:

1)  $(a - 5)(a + 5)$

2)  $(8 - y)(8 + y)$

3)  $(4y - 9)(4y + 9)$

4)  $3y^2(5y - 2)(5y + 2)$

5)  $(x - \frac{3}{8})(x + \frac{3}{8})$

6) prime

7)  $(2a - 5)(2a - 5)$  or  $(2a - 5)^2$

8)  $(x - 2 - z)(x - 2 + z)$

9)  $2x^2(x - 8)(x + 8)$

10)  $xy(x - 2)(x + 2)$