

# **Chapter 9 § 5**

## **Factoring Differences of Squares**

**Formula :**

$$\text{Differences of squares} = ( a^2 + ( -b^2 ) ) = ( a + ( -b ) ) ( a + b )$$

$$x^2 - 9$$

$$( x + ( -3 ) ) ( x + 3 )$$

$$a^2 - 121$$

$$( a + ( -11 ) ) ( a + 11 )$$

$$x^2 - 25$$

$$( x + ( -5 ) ) ( x + 5 )$$

$$100s^2 - 25t^4$$

$$(10s + (-5t^2))(10s + 5t^2)$$

$$16x^2 - z^4$$

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

$$81a^2 - 16y^4$$

$$(9a + (-4y^2))(9a + 4y^2)$$

# Spice Time

$$20cd^2 - 125c^5$$

$$5c ( 4d^2 - 25c^4 )$$

$$5c ( 2d + ( -5c^2 ) ) ( 2d + 5c^2 )$$

$$8x^2 - 18$$

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

$$2( 2x + ( -3 ) ) ( 2x + 3 )$$