

## Difference of Two Squares Worksheet

By Janine Bouyssounouse

The formula for the difference of two cubes is:  $a^2 - b^2 = (a+b)(a-b)$

**Example:**  $x^2 - 25 = (x+5)(x-5)$  where **a** = x and **b** = 5

**Example:**  $9m^2 - 16p^6 = (3m + 4p^3)(3m - 4p^3)$   
where **a** = 3m and **b** =  $4p^3$

### Practice Exercises:

- 1) Factor:  $x^2 - y^2$
- 2) Factor:  $g^4 - 49$
- 3) Factor:  $y^6 - 4$
- 4) Factor:  $81d^2 - 64$
- 5) Factor:  $36h^2 - 100b^8$
- 6) Fill in the missing parts:  $\_\_\_ - y^2 = (m + \_\_\_)(\_\_\_ - y)$
- 7) Fill in the missing parts:  $16r^6 - \_\_\_ = (\_\_\_ + \_\_\_)(\_\_\_ - 3p)$
- 8) Fill in the missing parts:  $4g^2 - 25m^8 = (\_\_\_ + \_\_\_)(2g - \_\_\_)$
- 9) Fill in the missing parts:  $\_\_\_ - \_\_\_ = (d + 4z)(d - 4z)$
- 10) Fill in the missing parts:  $\_\_\_ - \_\_\_ = (3r + 2k^2)(\_\_\_ - \_\_\_)$