

Algebra II  
Factoring Perfect Squares

Name \_\_\_\_\_

Date \_\_\_\_\_

Factor, if possible. If the problem is not factorable, write "prime".

1.  $m^2 - 4m + 4$

2.  $x^2 + 24x + 144$

3.  $1 + 2y + y^2$

4.  $81 + 18c + c^2$

5.  $49 - 14y + y^2$

6.  $900 - 60x + x^2$

7.  $y^2 + 3y + 9$

8.  $a^2 - 2ab + b^2$

9.  $c^2 - 4cd + 4d^2$

10.  $9k^2 + 6km + m^2$

11.  $4a^2 + 20ak + 25k^2$

12.  $25a^2 + 60ay + 36y^2$

13.  $100k^2 - 60km + 9m^2$

14.  $4m^2 + 40mn + 100n^2$

15.  $a^{10} + 2a^5 + 1$

16.  $y^8 - 2y^4 + 1$

17.  $k^4 - 6k^2 + 9$

18.  $a^2 + a + \frac{1}{4}$

19.  $25m^2 - 6m + \frac{9}{25}$

20.  $w^2 + \frac{2}{3}w + \frac{1}{9}$

21.  $4 - 4y^2 + y^4$

22.  $k^6m^{10} - 2k^3m^5n^4 + n^8$

23.  $16 - 8(a + b) + (a + b)^2$