Name:_____

Date:_____

Difference of Two Squares

Factor each equation.

1. $x^2 - y^2$

2. $x^2 - 64$

3. $x^2 - 81$

4. $a^4 - b^2$

5. $4a^2 - 9b^2$

6. $36a^2b^6 - 16y^4$

7. $121a^4 - 36b^6$

8. $16a^2b^2 - 9x^2y^2$

9. $25y^8z^6 - a^4$

10. $9a^6 - y^4z^2$

11. $16x^2 - 25z^4$

12. $49a^4 - 64b^2$

13. $X^2 - 144y^4$

14. $a^{10} - b^2c^4$

15. $144c^8 - 49a^4$

16. $81a^2 - 16b^4$

Answers:

Name:_____

Date:_____

Difference of Two Squares

1. $x^2 - y^2$
   $(x+y)(x-y)$

2. $x^2 - 64$
   $(x+8)(x-8)$

3. $x^2 - 81$
   $(x+9)(x-9)$

4. $a^4 - b^2$
   $(a^2+b)(a^2-b)$

5. $4a^2 - 9b^2$
   $(2a+3b)(2a-3b)$

6. $36a^2b^6 - 16y^4$
   $(6ab^3+4y^2)(6ab^3-4y^2)$

7. $121a^4 - 36b^6$
   $(11a^2+6b^3)(11a^2-6b^3)$

8. $16a^2b^2 - 9x^2y^2$
   $(4ab+3xy)(4ab-3xy)$

9. $25y^8z^6 - a^4$
   $(5y^4z^3+a^2)(5y^4z^3-a^2)$

10. $9a^6 - y^4z^2$
    $(3a^3+y^2z)(3a^3-y^2z)$

11. $16x^2 - 25z^4$
    $(4x+5z^2)(4x-5z^2)$

12. $49a^4 - 64b^2$
    $(7a^2+8b)(7a^2-8b)$

13. $X^2 - 144y^4$
    $(x+12y^2)(x-12y^2)$

14. $a^{10} - b^2c^4$
    $(a^5+bc^2)(a^5-bc^2)$

15. $144c^8 - 49a^4$
    $(12c^4+7a^2)(12c^4-7a^2)$

16. $81a^2 - 16b^4$
    $(9a+4b^2)(9a-4b^2)$