Factoring the Difference of Two Squares   Name: _____

1. $x^2 - 25$ $(x-5)(x+5)$

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

3. $4x^2 - 9y^2$ $(2x-3y)(2x+3y)$

4. $16 - 49a^2$ $(4-7a)(4+7a)$

5. $x^4 - 64$ $(x^2+8)(x^2-8)$

6. $y^4 - 36$ $(y^2+36)(y^2-36)$

7. $9x^2 - 25y^2$ $(3x-5y)(3x+5y)$

8. $81x^2 - 16y^2$ $(9x-4y)(9x+4y)$

9. $a^2 - 100b^2$ $(a-10b)(a+10b)$

10. $x^2 - \dfrac{1}{4}$ $(x-\frac{1}{2})(x+\frac{1}{2})$

11. $144x^2 - 121y^2$ $(12x-11y)(12x+11y)$

12. $81x^4 - y^4$ $(9x^2+y^2)(9x^2-y^2) = (9x^2+y^2)(3x-y)(3x+y)$

13. $16x^4 - 1$ $(4x^2+1)(4x^2-1) = (4x^2+1)(2x-1)(2x+1)$

14. $1 - a^2$ $(1-a)(1+a)$

15. $36x^2 - 1$ $(6x-1)(6x+1)$

16. $16 - 9x^2$ $(4-3x)(4+3x)$

17. $-49 + x^2$ $= (x^2-49) = (x-7)(x+7)$

18. $169x^2y^2 - 25z^2$ $(13xy-5z)(13xy+5z)$

19. $4x^4 - 9y^6$ $(2x^2-3y^3)(2x^2+3y^3)$

20. $x^8 - 225$ $(x^4-15)(x^4+15)$