

5.4 Factoring Binomials

Name _____

Factor. 1. $x^2 - 9$	2. $x^2 - 25$
3. $x^2 - a^2$	4. $x^2 - y^2$
5. $25x^2 - 9y^2$	6. $36x^2 - 49y^2$
7. $9x^2 - 1$	8. $y^2 - 1$
9. $1 - 4x^2$	10. $1 - w^2$
11. $x^4 - 16$	12. $x^4 - 81$
Answers: 1. $(x + 3)(x - 3)$; 3. $(x + a)(x - a)$; 5. $(5x + 3y)(5x - 3y)$; 7. $(3x + 1)(3x - 1)$; 9. $(1 + 2x)(1 - 2x)$; 11. $(x^2 + 4)(x + 2)(x - 2)$	

Factor.	
13. $x^3 + 8$	14. $x^3 + 27$
15. $x^3 - 64$	16. $x^3 - 8$
Factor completely.	
17. $5x^3 - 40y^3$	18. $2x^3 + 54y^3$
19. $x^6 - 64$	20. $1 - y^6$
Answers: 13. $(x + 2)(x^2 - 2x + 4)$; 15. $(x - 4)(x^2 + 4x + 16)$; 17. $5(x - 2y)(x^2 + 2xy + 4y^2)$; 19. $(x + 2)(x^2 - 2x + 4)(x - 2)(x^2 + 2x + 4)$	