

Chapter 5 Practice Test

Name _____

Class Time _____

Factor completely.

1. $x^2 - 9x + 18$

2. $x^2 - 19x - 42$

3. $49y^2 - 1$

4. $3x^3 - 75x$

5. $5x^4 + 10x^3$

6. $7x^2 + 23x + 6$

7. $x^2 - 9x + 8$

8. $x^4 + 11x^3 + 18x^2$

9. $2x^2 + 9xy - 18y^2$

10. $x^3y + xy^3$

11. $x^4 - 81$

12. $a^2 - ab - ax + bx$

13. $49x^2 - 14xy + y^2$

14. $x^3 + x^2 - 4x - 4$

15. $-3x^3 + 2x^2 + 8x$

Solve.

_____ 16. $5x^2 - x = 0$

_____ 17. $x^2 - x = 2$

_____ 18. $x^2 - 6x = 0$

_____ 19. $15X^2 - 6 = X$

_____ 20. $9x^2 = 25$

Answer Key:

1. $(x - 6)(x - 3)$

2. $(x - 21)(x + 2)$

3. $(7y + 1)(7y - 1)$

4. $3x(x + 5)(x - 5)$

5. $5x^3(x + 2)$

6. $(7x + 2)(x + 3)$

7. $(x - 8)(x - 1)$

8. $x^2(x + 2)(x + 9)$

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

10. $xy(x^2 + y^2)$

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

12. $(a - x)(a - b)$

13. $(7x - y)(7x - y)$

14. $(x+1)(x+2)(x-2)$

15. $-x(3x + 4)(x - 2)$

16. $0, \frac{1}{5}$

17. $-1, 2$

18. $0, 6$

19. $-\frac{3}{5}, \frac{2}{3}$

20. $-\frac{5}{3}, \frac{5}{3}$