

Factor and Solve Polynomials Practice

Name: _____

Factor Completely.

1. $5a^2 - 15$

2. $6xy^2 - 3xy + 8y - 4$

3. $2y^3 - 6xy^2 + 8x^2y$

4. $6n^2 - 13n + 6$

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

6. $x^2 - 14x + 40$

7. $6x^2 - 17x - 3$

8. $2a^2 + 8ab - 3a - 12b$

9. $2x^2 - 3x - 20$

10. $x^2 - 12x - 64$

11. $6mn - 9m - 4n + 6$

12. $75b^2c^3 + 60bc^6$

Solve each equation.

13. $3x^2 + 2x - 8 = 0$

14. $2x^2 - 3x = 0$

15. $x^3 + 5x^2 - 9x - 45 = 0$

16. $x^2 + 20 = -9x$

17. $4z^3 - 32z^2 - 5z = -40$

18. $6z^2 = 18z$

19. $15c + 30c^2 = 0$

20. $-25k - 75 + k^3 = -3k^2$

21. $5x^2 + 22x = 15$