

Pre-Calculus
Factoring Practice

Name _____

Solve for the indicated variable:

1. Solve for h: $A = \frac{1}{2}bh$

2. Solve for w: $V = lwh$

3. Solve for k: $(x-h)^2 + (y-k)^2 = r^2$

Factor and solve for y:

4. $2x^2 + 4xy - xy - 2y^2 = 0$

Factor and solve by completing the square:

5. $x^2 - 12x + 9 = 0$

6. $2x^2 + 4x - 11 = 0$

Solve:

7. $x^2 + 7x + 12 = 0$

8. $x^2 - 5x - 36 = 0$

9. $4x^3 - 20x^2 - 24x = 0$

10. $2x^2 + 13x + 6 = 0$

11. $4x^2 + 7x - 15 = 0$

12. $5x^2 - 18x + 16 = 0$

13. $9x^8 - 33x^4 + 28 = 0$

14. $12x^6 - 5x^4 - 25x^2 = 0$

15. $x^4 - 16 = 0$

16. $4x^4 + x^2 - 5 = 0$

17. $6x^5 - 21x^3 - 12x = 0$

18. $3x^2 + 18x + 27 = 0$

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

20. $3x^2 - 5x - 10 = 0$

21. $5x^3 + 7x^2 + 17x = 0$

22. $x^3 + 4x^2 - 8x - 32 = 0$

23. $x^3 + 2x^2 = 9x + 18$

24. $x^2 + 5 = 0$

25. $-x^2 - 2 = 0$

26. $x^3 + 216 = 0$

27. $448x^5 - 875x^2 = 0$

28. $x^6 + 7x^3 = 8$

29. $x^6 - 8 = 7x^3$

30. $3x^4 + 21x^3 - 38x^2 - 233x + 231 = 0$