

Name:

Period:

Date:

**Factoring Polynomials: Tiered Practice (A)**

Each level must be checked by the teacher BEFORE you try problems in the next level. Factor all polynomials completely. Circle your final answer. You must show work to get credit.

You need 6/8 correct. Level 1: \_\_\_\_\_ Extra credit: \_\_\_\_\_

1. $14x^2 - 21x$	2. $x^3 + 64$	3. $16x^2 + 8x + 1$	4. $x^3 - 216$
5. $x^4 - 49$	6. $27x^3 - 1$	7. $x^4 - 2x^2 - 15$	8. $3x^3 - x^2 + 9x - 3$

You need 6/8 correct. Level 2: \_\_\_\_\_ Extra credit: \_\_\_\_\_

9. $14x^4 + x^2 - 3$	10. $343x^3 - 27$	11. $25x^3 - 100x^2 - x + 4$	12. $4x^3 - 100x$
13. $8x^2 - 9x - 18 + 4x^3$	14. $2x^7 - 16x^4 + 24x$	15. $256x^4 - 81$	16. $128x^3 + 54$

You need 4/6 correct. Level 3: \_\_\_\_\_ Extra credit: \_\_\_\_\_

17. $9x^4 - 37x^2 + 4$	18. $64x^3 + 216$
19. $x^5 + 8x^2 - 4x^3 - 32$	20. $2x^3 - 1024x^6$
21. $108x^5 - 243x^3 - 4x^2 + 9$	22. $-30x^8 + 4x^5 + 16x^2$

Extra credit: \_\_\_\_\_

23. $75a^2c - 45a^2d - 30bc + 18bd$	24. $x^7m + 2x^4m - 15xm$	25. $x^{2n} + 9x^n - 10$
-------------------------------------	---------------------------	--------------------------