2.3

Name _____ Date _____ Period _____

Factoring Special Cases

<u>Identify what special case</u> is seen in the problem. Factor completely.

1. $x^2 - 100$

2. $x^3 - 8$

3. $x^3 + 64$

4. $49x^2 - 36$

5. $1 - 81x^2$

6. $x^3 - 27$

7. $81x^2 - 16$

8. $8x^3 + y^3$

9. $x^2 + 25$

10. $1 + 8x^3$

11. $27 - x^3$

12. $4x^2 - 49$

13. $27x^3 - 125$

14. $8x^3 + 27$

15. $64 + 27x^3$

16. $4x^3 + 108y^3$

17. $4x^2 - 9y^2$

18. $2x^3 - 32x$

Solve by factoring.

19. $25x^2 - 36 = 0$

20. $25 - x^2 = 0$

21. $12x^2 - 27 = 0$

22. Write in standard form and name the degree of the polynomial.

$12 + 4x^3 - 5x$