Lesson 7.4 Difference of Squares

Name: _____ Date: _____

$a^2 - b^2 = (a - b)(a + b)$. A SUM of squares does not factor. GCF first. Last five are challenge problems!

1. Factor completely: $x^2 - 25$

show your work

2. Factor completely: $9x^2 - 1$

show your work

3. Factor completely: $x^2 - 16$

show your work

4. Factor completely: $x^2 - 4$

show your work

5. Factor completely: $x^2 - 9$

show your work

6. Factor completely: $x^2 - 49$

show your work

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7. Factor completely: $4x^2 - 9$

show your work

8. Factor completely: $16x^2 - 9$

show your work

9. Factor completely: $x^2 - 121$

show your work

10. Factor completely: $4x^2 - 81$

show your work

11. Factor completely: $x^2 - 64$

show your work

12. Factor completely: $25x^2 - 64$

show your work

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13. Factor completely: $x^2 - 100$

show your work

14. Factor completely: $25x^2 - 1$

show your work

15. Factor completely: $25x^2 - 4$

show your work

16. Factor completely: $25x^2 - 49$

show your work

17. Factor completely: $4x^2 - 25$

show your work

18. Factor completely: $4x^2 - 121$

show your work

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19. Factor completely: $49x^2 - 4$

show your work

20. Factor completely: $49x^2 - 9$

show your work

21. Factor completely: $2x^2 - 50$

show your work ★ CHALLENGE

22. Factor completely: $x^3 - 49x$

show your work ★ CHALLENGE

23. Factor completely: $x^2 + 36$

show your work ★ CHALLENGE

24. Factor completely: $x^4 - 16$

show your work ★ CHALLENGE

25. Use difference of squares to find 31×29 without a calculator. (Hint: $31 \times 29 = (30 + 1)(30 - 1)$.)

show your work ★ CHALLENGE

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