Lesson 7.7 Which Method?

Name: _____ Date: _____

Same four questions every time: GCF? How many terms? Which pattern? Can any piece factor again? Last five are challenge problems!

1. Factor completely: $6x^2 + 30x$

show your work

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

show your work

3. Factor: $x^2 + 12x + 27$

show your work

4. Factor: $6x^2 - 13x - 28$

show your work

5. Factor completely: $3x^2 - 108$

show your work

6. Factor completely: $2x^2 - 10x + 12$

show your work

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7. Factor completely: $4x^3 + 20x$

show your work

8. Factor completely: $x^2 - 36$

show your work

9. Factor: $x^2 - 3x - 4$

show your work

10. Factor: $8x^2 + 30x + 7$

show your work

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

show your work

12. Factor completely: $3x^2 + 12x + 9$

show your work

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13. Factor completely: $10x^2 + 15$

show your work

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

show your work

15. Factor: $x^2 + 2x - 80$

show your work

16. Factor: $9x^2 + 6x + 1$

show your work

17. Factor completely: $2x^3 - 72x$

show your work

18. Factor completely: $3x^2 + 6x - 9$

show your work

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19. Factor completely: $24x + 6$

show your work

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

show your work

21. Factor completely: $2x^3 + 6x^2 - 20x$

show your work ★ CHALLENGE

22. Factor completely: $3x^4 - 48$

show your work ★ CHALLENGE

23. Factor completely: $12x^2 + 2x - 4$

show your work ★ CHALLENGE

24. Which expression is equivalent to $5x^2 - 45$?

(1) $5(x - 3)^2$
(2) $5(x - 3)(x + 3)$
(3) $(5x - 9)(x + 5)$
(4) $5(x - 9)(x + 9)$

show your work ★ CHALLENGE

25. Factor completely: $x^2 + 9$. Explain your answer.

show your work ★ CHALLENGE

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