Lesson 7.1 Polynomial Vocabulary; Adding & Subtracting

Name: _____ Date: _____

Standard form = highest exponent first. "Subtract A from B" means B − A. Only like terms combine. Last five are challenge problems!

1. Write $5 + 5x + 9x^3$ in standard form. Then state its degree, leading coefficient, and constant term.

show your work

2. Add: $(-4x^2 + 4) + (-7x^2 + 1)$

show your work

3. Subtract: $(8x^2 - 3x) - (8x^2 - 8)$

show your work

4. Subtract $-x^2 + x - 6$ from $-4x^2 - 8$.

show your work

5. Write $3 - 8x^2$ in standard form. Then state its degree, leading coefficient, and constant term.

show your work

6. Add: $(-x^2 - 9x - 7) + (4x^2 + 9)$

show your work

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7. Subtract: $(-5x^2 - 7) - (9x^2 + 3)$

show your work

8. Subtract $2x^2 + 2$ from $-3x^2 + 4x$.

show your work

9. Write $-3 + 5x^2 - 8x^3$ in standard form. Then state its degree, leading coefficient, and constant term.

show your work

10. Add: $(6x^2 - 9) + (-3x^2 - 3)$

show your work

11. Subtract: $(2x^2 - 3) - (5x^2 + 9x)$

show your work

12. Subtract $-4x^2 + 8x + 6$ from $-5x^2 - 6$.

show your work

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13. Write $-7x^3 + 9x - 8x^2 - 3$ in standard form. Then state its degree, leading coefficient, and constant term.

show your work

14. Add:
$(x^2 - 9x + 1) + (-2x^2 + 2x - 8)$

show your work

15. Subtract: $(-9x^2 + 4x) - (7x^2 + 8)$

show your work

16. Subtract $9x^2 - 7$ from $-4x^2 + 4x$.

show your work

17. Write $2 + 9x^3 - 5x^4 - 7x^2$ in standard form. Then state its degree, leading coefficient, and constant term.

show your work

18. Add: $(9x^2 + 5) + (x^2 + 4x - 2)$

show your work

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19. Subtract: $(4x^2 - 9x) - (4x^2 - 8)$

show your work

20. Subtract $2x^2 - 5x + 9$ from $-8x^2 + 7$.

show your work

21. Subtract $3x^2 - 5x + 2$ from the sum of $(x^2 + 4x - 7)$ and $(2x^2 + x + 3)$.

show your work ★ **CHALLENGE**

22. A rectangle has length $2x + 5$ and width $x - 3$. Write its perimeter as a polynomial in standard form.

show your work ★ **CHALLENGE**

23. Subtract: $(4x^3 - 2x + 1) - (x^3 + 3x^2 - 6)$

show your work ★ **CHALLENGE**

24. What polynomial must be added to $2x^2 - 3x + 4$ to get $5x^2 + x - 2$?

show your work ★ **CHALLENGE**

25. Is $4x^2 - 3x + 5$ a monomial, binomial, or trinomial? What is its degree?

show your work ★ **CHALLENGE**

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