

Name: _____

Date: _____

Algebra I

Directions: Simplify the following polynomials by adding or subtracting. Show all work. Put all answers in correct descending order.

1. $(x^2 + x - 14) + (3x^2 + 2x - 7)$

2. $(x^2 + x - 14) + (-2x^2 - 6x + 9)$

3. $(x^2 + 4) + (x^2 - 2x - 5)$

4. $(2x - 4x^2 - 6) + (3x^2 + 17)$

5. $(-4x^2 + 3y^2 + 3xy) + (-7y^2 + 2x^2 - 12xy)$

6. $(2x + 4y) + (6y - 8x) + (-2x - 14y)$

7. $(4x^2 + 16x - 9) + (-8 + 7x^2 - 13x) + (-6x - 11x^2 - 2)$

8. $(-7v^2 + 8uv) + (-3uv - u^2 + 4v^2) + (-3v^2 + 5uv)$

9. $(-6u^3v^4 + 12u) + (-3u^3v^4 - 9u + 4u^2v^2) + (-2u^2v^2 + 2u^3v^4)$

10. $(x + 4) - (2x + 7)$

11. $(x^2 + 2x - 6) - (4x^2 - 3x + 5)$

12. $(5y - 2y^2 - 12) - (3y^2 - 6y - 8)$

13. $(x - 6) - (x - 12)$

14. $(3x + 9) - (-3x + 5)$

15. $(4x^2 + 3x) - (4x + 2x^2)$

16. $(7pq + 9p + 8q) - (4p + 2q) - (4pq + 3p)$

17. $(3st^2 - 4s^2t + 2st) - (2s^2t - 6st + 9st^2)$

18. $(-6x^2 - 7x^3y^2) - (-4x^2 - 9x^3y^2 - 3x) - (13x + 5x^2)$

19. $(5k + 2k^2 - 16) - (-12k + 4 - 3k^2)$

$$20. (6x + 7y) + (16x + 5x^2 - 2y) - (4y - 2x^2)$$

$$21. (5a + b) - (7a + 4b) + (15b + 2a)$$

$$22. (2xy + 3x + 2y) + (4x + 3y) - (3xy - 2y)$$

$$23. (7rs - 2r^2s) - (7rs^2 - 2rs) + (r^2s + rs^2)$$

$$24. (-7y^3 - 5x^4y^4) + (-16x^3y^3 + 15y^3 + 3x^4y^4) - (8x^3y^3 + 9x^4y^4)$$