Name _____ Class _____ Date _____

Practice 9-1

Adding and Subtracting Polynomials

Write each polynomial in standard form. Then name each polynomial based on its degree and number of terms.

1. $4y^3 - 4y^2 + 3 - y$

2. $x^2 + x^4 - 6$

3. $x + 2$

4. $2m^2 - 7m^3 + 3m$

5. $4 - x + 2x^2$

6. $7x^3 + 2x^2$

7. $n^2 - 5n$

8. $6 + 7x^2$

9. $3a^2 + a^3 - 4a + 3$

10. $5 + 3x$

11. $7 - 8a^2 + 6a$

12. $5x + 4 - x^2$

13. $2 + 4x^2 - x^3$

14. $4x^3 - 2x^2$

15. $y^2 - 7 - 3y$

16. $x - 6x^2 - 3$

17. $v^3 - v + 2v^2$

18. $8d + 3d^2$

Simplify. Write each answer in standard form.

19. $(3x^2 - 5x) - (x^2 + 4x + 3)$

20. $(2x^3 - 4x^2 + 3) + (x^3 - 3x^2 + 1)$

21. $(3y^3 - 11y + 3) - (5y^3 + y^2 + 2)$

22. $(3x^2 + 2x^3) - (3x^2 + 7x - 1)$

23. $(2a^3 + 3a^2 + 7a) + (a^3 + a^2 - 2a)$

24. $(8y^3 - y + 7) - (6y^3 + 3y - 3)$

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

26. $(5n^2 - 7) - (2n^2 + n - 3)$

27. $(5n^3 + 2n^2 + 2) - (n^3 + 3n^2 - 2)$

28. $(3y^2 - 7y + 3) - (5y + 3 - 4y^2)$

29. $(2x^2 + 9x - 17) + (x^2 - 6x - 3)$

30. $(3 - x^3 - 5x^2) + (x + 2x^3 - 3)$

31. $(3x + x^2 - x^3) - (x^3 + 2x^2 + 5x)$

32. $(d^2 + 8 - 5d) - (5d^2 + d - 2d^3 + 3)$

33. $(3x^3 + 7x^2) + (x^2 - 2x^3)$

34. $(6c^2 + 5c - 3) - (3c^2 + 8c)$

35. $(3y^2 - 5y - 7) + (y^2 - 6y + 7)$

36. $(3c^2 - 8c + 4) - (7 + c^2 - 8c)$

37. $(4x^2 + 13x + 9) + (12x^2 + x + 6)$

38. $(2x - 13x^2 + 3) - (2x^2 + 8x)$

39. $(7x - 4x^2 + 11) + (7x^2 + 5)$

40. $(4x + 7x^3 - 9x^2) + (3 - 2x^2 - 5x)$

41. $(y^3 + y^2 - 2) + (y - 6y^2)$

42. $(x^2 - 8x - 3) - (x^3 + 8x^2 - 8)$

43. $(3x^2 - 2x + 9) - (x^2 - x + 7)$

44. $(2x^2 - 6x + 3) - (2x + 4x^2 + 2)$

45. $(2x^2 - 2x^3 - 7) + (9x^2 + 2 + x)$

46. $(3a^2 + a^3 - 1) + (2a^2 + 3a + 1)$

47. $(2x^2 + 3 - x) - (2 + 2x^2 - 5x)$

48. $(n^4 - 2n - 1) + (5n - n^4 + 5)$

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

50. $(7s^2 + 4s + 2) + (3s + 2 - s^2)$

51. $(6x^2 - 3x + 9) - (x^2 + 3x - 5)$

52. $(3x^3 - x^2 + 4) + (2x^3 - 3x + 9)$

53. $(y^3 + 3y - 1) - (y^3 + 3y + 5)$

54. $(3 + 5x^3 + 2x) - (x + 2x^2 + 4x^3)$

55. $(x^2 + 15x + 13) + (3x^2 - 15x + 7)$

56. $(7 - 8x^2) + (x^3 - x + 5)$

57. $(2x + 3) - (x - 4) + (x + 2)$

58. $(x^2 + 4) - (x - 4) + (x^2 - 2x)$