NAME _____ DATE _____ PERIOD _____

8-1 Skills Practice
Adding and Subtracting Polynomials

Find each sum or difference.

1. $(2x + 3y) + (4x + 9y)$

2. $(6s + 5t) + (4t + 8s)$

3. $(5a + 9b) – (2a + 4b)$

4. $(11m – 7n) – (2m + 6n)$

5. $(m^2 – m) + (2m + m^2)$

6. $(x^2 – 3x) – (2x^2 + 5x)$

7. $(d^2 – d + 5) – (2d + 5)$

8. $(2h^2 – 5h) + (7h – 3h^2)$

9. $(5f + g – 2) + (–2f + 3)$

10. $(6k^2 + 2k + 9) + (4k^2 – 5k)$

Determine whether each expression is a polynomial. If it is a polynomial, find the degree and determine whether it is a *monomial, binomial,* or *trinomial.*

11. $5mt + t^2$

12. $4by + 2b – by$

13. $–32$

14. $\frac{3x}{7}$

15. $5x^2 – 3x^{-4}$

16. $2c^2 + 8c + 9 – 3$

Write each polynomial in standard form. Identify the leading coefficient.

17. $3x + 1 + 2x^2$

18. $5x – 6 + 3x^2$

19. $9x^2 + 2 + x^3 + x$

20. $–3 + 3x^3 – x^2 + 4x$

21. $x^2 + 3x^3 + 27 – x$

22. $25 – x^3 + x$

23. $x – 3x^2 + 4 + 5x^3$

24. $x^2 + 64 – x + 7x^3$