

Name _____

Algebra I Practice Quiz 8.1-8.4

Find the degree of each polynomial.

1. $5n^3m - 2m^3 + n^2m^4 + n^2$ _____

2. $15xyz$ _____

Write each polynomial in standard form.

3. $-3x^3 - 5x^5 + 8 - 2x$ _____

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

Find each sum or difference.

5. $(2x + 3y) + (4x - 8y)$ _____

6. $(d^2 - d + 5) - (2d + 5)$ _____

7. $(2m^2 + 5m + 1) - (4m^2 - 3m - 3)$ _____

8. $(x^3 - 7x^2 + 4x - 2) + (-4x + 7 - 5x^2)$ _____

Find each product.

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

10. $-4x^2(-2x^2 + 3x + 2)$

11. $(x + 5)(x - 7)$

12. $(3x - 2y)(4x - y)$

13. $(2x - 3)(3x^2 - 4x + 7)$

14. $(2x^3 - 3y^2)^2$

15. $(4x - 7y)(4x + 7y)$

Simplify

16. $5x(-7x+3)+2x(-2x^2+10x-3)$

17. $6y(2y-3)-5y(2y^2+3y-2)$

18. $-2(3x^3+5x+6)+3x(2x^2+3x+1)$

Solve each equation.

19. $5(2x-1)+3=3(3x+2)$

20. $4(8x+3)-5=2(6x+8)+1$
