

NAME: _____ PERIOD: _____ DATE: _____

Homework Problem Set

Use an area model to compute the following products:

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

2. $(10x + 1)(x + 1)$

Hint: For Problems 3 and 4, use 0-terms as shown in Exercise 13.

3. $(3x^2 + 2)(2x + 3)$

4. $(2x^2 + 10x)(x^2 + 1)$

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

6. $(2x^2 + 10x + 1)(x^2 + x + 1)$

7. Multiply the polynomials using the distributive property: $(3x^2 + x - 1)(x^4 - 2x + 1)$.

8. Sammy wrote a polynomial using only one variable, x , of degree 3. Myisha wrote a polynomial in the same variable of degree 5. What can you say about the degree of the product of Sammy's and Myisha's polynomials?

Use either method to write each of the following expressions as the sum of monomials.

9. $3a(4 + a)$

10. $x(x + 2) + 1$

11. $(x - 4)(x + 5)$

12. $(2z - 1)(3z^2 + 1)$

13. $(10w - 1)(10w + 1)$

14. $(-5w - 3)w^2$

15. $(x^2 - x + 1)(x - 1)$

16. $(x + y)(y + z)(z + x)$