

Name: _____

Date: _____

UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES AND EXPRESSIONS

Lesson 3: Interpreting Formulas and Expressions

Practice 1.3.3: Multiplying Polynomials

B

Find each product.

1. $(x + 3)(x + 8)$

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

3. $(x + 10)(2x^2 + x - 6)$

4. $(-3x^4 + 1)(-x^2 - 8x + 5)$

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

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

The area of a rectangle is found using the formula $A = lw$, where l is the length of the rectangle and w is the width. Multiply each pair of factors and express the area of each rectangle as a single polynomial in terms of x .

7. $l = 2x - 15$; $w = x - 4$

8. $l = -x^3 + 2$; $w = x^2 + x$

9. $l = 5x + 2$; $w = x^2 + 1$

10. $l = 8x - 7$; $w = 3x - 3$