

## Lesson 5.2: Multiplying Polynomials

## Practice 5.2: Multiplying Polynomials

A

Find each product.

1.  $(x + 10)(x - 7)$

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

3.  $(2x + 1)(x^4 - 6x + 3)$

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

5.  $(2x^2 + x - 6)(10x + 4)$

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

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.  $l = x + 14; w = 3x + 1$

8.  $l = x^2 - 8; w = -x + 12$

9.  $l = x^2 - 4; w = 5x + 10$

10.  $l = 4x^2 + 8; w = 2x^2 - 3$