Name: _____

Operations with Polynomials

Exercise 1: Given the two binomials $(x - 3)$ and $(x + 3)$

  1) Find their product.
  2) What do you conclude?
  3) Explain how to find the product of 39 and 41 mentally.
     (*Hint*: Write 39 as 40 - 1 and 41 as 40 + 1.)
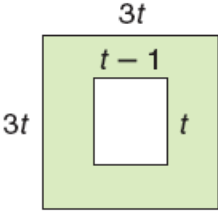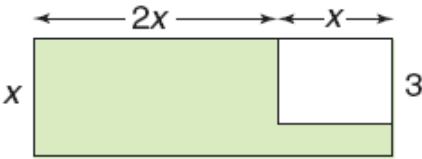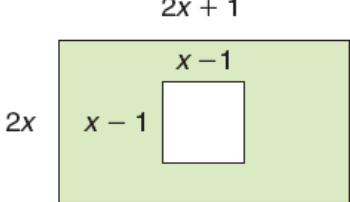
Exercise 2: What is the product of x, $(2x - 1)$, and $(x + 3)$?

Exercise 3: Find $(a + b + c)^2$.

Exercise 4: Ziad is making a wooden box for a project in woodshop. The base of the box has width x inches and length $x + 5$ inches. What polynomial represents the area of the base of the box?

Exercise 5: Bocce is a game similar to lawn bowling, but it is played on a rectangular dirt court. If the length of the rectangle is $12x$ and the width is $2x + 2$, find the area of the court in terms of x. Write your answer as a polynomial in simplest form.

Exercise 6: Find the area of the shaded region for each figure.

1)	
2)	
3)	
4)	