Name: _____

Operations with Polynomials

Exercise 1: Subtract $\left(-4x^2 - 5y^2 - 8\right)$ from $\left(2x^2 + 3y^2 + 8\right)$.

Exercise 2: The sides of a triangle are represented by $2x^2 + 4$, $5x^2 - 6x$, and $8x + 3$. What is the perimeter of the triangle?
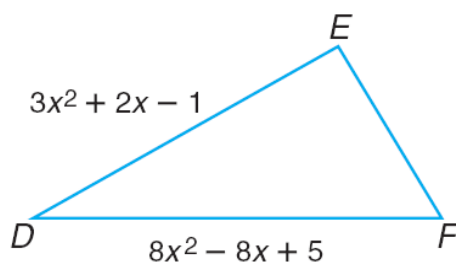
Exercise 3: A circular courtyard has an area of $10 - 2x^2$. There are two rectangular flower beds in the courtyard. What is the area of the green lawn area?
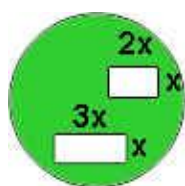
Exercise 4: The perimeter of triangle *ABC* is $7x + 2y$. Find the measure of the third side of the triangle.
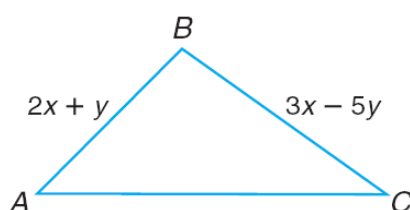
Exercise 5: The perimeter of triangle *DEF* is $12x^2 + 7x - 9$. Find the measure of the third side of the triangle.

Exercise 28: Find the product

1) $-5x(2x)$

2) $7x^3\left(-4x^3\right)$

3) $-8\left(x^3 - 2x\right) - 5$

4) $5x\left(x^2 - 5x + 4\right)$

5) $-7x^2\left(2x^2 + 4x - 9\right)$

6) $(x+3)(x+7)$