

**BRONX COMMUNITY COLLEGE**  
of the City University of New York

**DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE**

MATH 05  
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Quiz 8  
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Name: \_\_\_\_\_

**Directions:** You *must* show all your work in the provided space. Simplify your answers whenever possible. Be certain to indicate your final answer clearly.

1. Find the following products:

(a)  $(x + 3)(2x - 5)$

(b)  $(2x - 3)(x^2 - 3x + 4)$

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

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

(e)  $(2x + 3)(2x - 3)$

(f)  $(x + 1)(x - 2)(x + 3)$

2. A rectangle has length  $2x - 3$  and width  $4x + 5$ . Find a polynomial that expresses its area.

3. Perform the following divisions:

(a) 
$$\frac{x^3y^4 + 9x^2y^4 - 6x^2y}{3xy}$$

(b) 
$$\frac{6x^2 + 13x - 1}{2x + 5}$$

4. A rectangle has area  $8x^2 - 10x - 3$ . Its length is  $2x - 3$ . Find its width.