## ACMAT117 Fall 2025 Professor Manguba-Glover Section 4.3 Homework (HW 14)

Name:

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

**Due next class.** Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

(1) Divide 
$$\frac{3x^4-6x^2-9}{3x^3}$$

(2) Divide 
$$\frac{2x^4 - 3x^2 + 4x - 7}{-x}$$

(3) Divide 
$$(x^4 - 3x^3 - x + 3) \div (x - 3)$$

(4) Divide 
$$(20x^4 + 6x^3 - 2x^2 + 15x - 2) \div (5x - 1)$$

(5) Divide 
$$(x^3 - x^2 + 2x - 3) \div (x^2 + 3)$$

(6) Divide 
$$(3x^4 - 2x^2 - 5) \div (3x^2 - 5)$$

(7) Divide 
$$\frac{x^2 - 3x + 1}{x - 2}$$

(8) Divide 
$$\frac{x^2 - 2x + 1}{x + 4}$$

(9) Divide 
$$(x^4 - 2x^3 + 2x^2 - 5x) \div (x - 2)$$

(10) Divide 
$$(x^5 + x^4 + 2x + 2) \div (x + 1)$$