

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 and simplify:  $(6x^3 + 7x^2 - 5x + 5) \div (3x - 1)$

(2) Divide and simplify:  $(27x^3 + 9x^2 - 3x - 9) \div (3x - 2)$

(3) Divide and simplify:  $(3x^3 + x^2 + 2x + 5) \div (x^3 + 2x + 1)$

(4) Divide and simplify:  $\frac{3x^4 - 12x + 5}{x + 1}$

(5) Divide and simplify:  $\frac{x^3 + 2x^2 - 5x + 1}{x - 2}$