

Name:

HW 2: §B.2-B.3

Complete the following problems to the best of your ability. **SHOW ALL OF YOUR WORK.** Unshown work will not be graded. You may use a calculator.

1. Factor the following expressions completely.

(a) $3x^2 - 9x$

(b) $-x^3 + x$

(c) $x^2 + 2x - 15$

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

2. Evaluate and simplify the following expressions.

$$(a) \frac{x^2 - 1}{x^2 + 5x + 6} \cdot \frac{x + 3}{x - 1}$$

$$(b) \frac{x^2 - 4}{x^2 + 6x + 8} \div \frac{x + 4}{x - 2}$$

$$(c) \frac{2}{x - 3} - \frac{3}{x + 2}$$

Optional Problems:

B.1: 1-34, 57-64

B.2: All

B.3: 1-46