

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