

**CALCULUS I**  
**HOMEWORK NR. 1: FIRST PART**

Spring Semester 2007, SAINT LOUIS UNIVERSITY  
January 17th, 2007

**Name:**

Find all the real numbers satisfying the following inequalities. Write the solution using intervals and represent it in the real line.

(a)  $x^4 - 16 \geq 0$ .

(b)  $x^{\frac{2}{3}} - x^{\frac{1}{3}} \leq 0$ .

(c)  $\frac{x+1}{x-1} \geq \frac{x}{x-1}$ .

(d)  $x^2 - 4 \geq 0$

(e)  $2x + 5 < 3x - 4$

(f)

$$\frac{3x+2}{x-3} < 2.$$