Math 386 Quiz 2 (2009/9/22) Your Name_____
Justify all answers, except where stated.

(1) [10 points.] What r-combination of what multiset M corresponds to the sequence

$$aaaa|aa|||aaa\ ?$$

What is the value of r? What is the number of types in M (i.e., k)?

$M =$ _____ $r =$ _____ $k =$ _____

(2) [5 points.] What sequence of a's and |'s corresponds to the solution $(3, 4, 5, 4, 3, 2, 0)$ of the equation $x_1 + x_2 + \cdots + x_7 = 21$?

(3) [5 points.] What combination from $\{\infty \cdot a_1, \ldots, \infty \cdot a_7\}$ corresponds to the solution $(3, 4, 5, 4, 3, 2, 0)$ of the equation $x_1 + x_2 + \cdots + x_7 = 21$?

(4) [5 points.] What combination from $\{\infty \cdot a_1, \ldots, \infty \cdot a_7\}$ corresponds to the solution $(3, 4, 8, 4, 3, 2, -4)$ of the equation $x_1 + x_2 + \cdots + x_7 = 21$?