

**Quiz #3**

Please show your work and feel free to use the back of the sheet if you need more room.

- 1 Consider the following tableau, which arose in solving a linear programming problem by the simplex method.

$x_1$	$x_2$	$x_3$	$u$	$v$	$w$	
1	5	2	0	0	3	20
0	2	4	1	0	-4	6
0	2	-1	0	1	3	12
0	-5	-3	0	0	3	12

- (a) Identify the basic feasible solution and basic variables in this tableau.
- (b) Identify the departing and entering variable at this stage in the simplex method.