

In Class Work, 7.4

- Given the optimal solution below, find Δ so that the current basis remains optimal, if we want to change c_{22} from 12 to $12 + \Delta$.

	$v_1 = 6$		$v_2 = 6$		$v_3 = 10$		$v_4 = 2$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 = 3$		9		12		13		7	50
	45				5				
$u_3 = 3$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125

- Given the optimal solution below, find Δ so that the current basis remains optimal, if we want to change c_{32} from 9 to $9 + \Delta$. An extra table below is included, if you want to use it for your computations.

	$v_1 = 6$		$v_2 = 6$		$v_3 = 10$		$v_4 = 2$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 = 3$		9		12		13		7	50
	45				5				
$u_3 = 3$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125

	$v_1 =$		$v_2 =$		$v_3 =$		$v_4 =$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 =$		9		12		13		7	50
	45				5				
$u_3 =$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125

3. Given the optimal solution below, find the new optimal solution if we add Δ to Demand 2, Supply 3.

	$v_1 = 6$		$v_2 = 6$		$v_3 = 10$		$v_4 = 2$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 = 3$		9		12		13		7	50
	45				5				
$u_3 = 3$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125

4. Given the optimal solution below, find the new optimal solution if we add Δ to Demand 4, Supply 2. Also compute the change in z . An extra table is below if you want to use it.

	$v_1 = 6$		$v_2 = 6$		$v_3 = 10$		$v_4 = 2$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 = 3$		9		12		13		7	50
	45				5				
$u_3 = 3$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125

	$v_1 = 6$		$v_2 = 6$		$v_3 = 10$		$v_4 = 2$		Supply
$u_1 = 0$		8		6		10		9	35
			10		25				
$u_2 = 3$		9		12		13		7	50
	45				5				
$u_3 = 3$		14		9		16		5	40
			10				30		
Demand	45		20		30		30		125