MENG 445(Fall 2005)
Aggregate Planning- Practice Problem II

Using the following information **only**:
Regular production Cost: $80/unit
Vendor supply price Cost: $140/unit
Backorder Cost: $25/unit/period
Income per unit supplied to the customer (sold): $140

Overtime production Cost: $110/unit
Inventory Cost: $30/unit/period
Beginning inventory: 6 units

Regular time maximum production rate is 10 units/period
Overtime maximum production rate is 3 units/period
Vendor can supply a maximum of 4 units per period.

Evaluate the **profit** of the following proposed aggregate plan:

Period	FD	RP	OTP	VNP								
1	12	10	3									
2	13	10										
3	16	10		4								
4	15	10	3									

RP = Regular Production (Qty) OTP = Over Time Production (Qty)VNP = Vendor Production (Qty)
(Notice that inventory holding cost in any period should be based on the average quantity held. The average quantity held = (beginning inventory in the period + ending inventory in the same period)/2)

Modify the plan above to increase the profit.

Period	FD	RP	OTP	VNP								
1	12											
2	13											
3	16											
4	15											