CASE: The Case of the Perplexed President; Lean Production

John Ovard, president of Mylar Ltd., was looking forward to receiving the company's second quarter income statement. He knew that the sales budget of 20,000 units sold had been met during the second quarter and that this represented a 25% increase in sales over the first quarter. He was especially happy about the increase in sales, since Mylar was about to approach its bank for additional loan money for expansion purposes. He anticipated that the strong second-quarter results would be a real plus in persuading the bank to extend the additional credit.

For this reason, Mr. Ovard was shocked when he received the second-quarter income statement below, which showed a substantial drop in absorption costing net operating income from the first quarter.

	Mylar, First two Quarters		**Mylar, First two Quarters**	
	First Quarter		**First Quarter**	
Sales		£1,600,000		£2,000,000
Cost of goods sold:				
Beginning Inventory	£210,000		£490,000	
Add cost of goods manufactured	1,400,000		980,000	
Goods available for sale	1,610,000		1,470,000	
Less ending inventory	490,000		70,000	
Cost of goods sold	1,120,000		1,400,000	
Add underapplied overhead	0	1,120,000	240,000	1,640,000
Gross margin		480,000		360,000
Selling and admin expenses		310,000		330,000
Net operating income		£170,000		£30,000

Mr. Ovard was certain there had to be an error somewhere and immediately called the controller into his office to find the problem. The controller stated, “That net operating income is correct, John. Sales went up during the second quarter, but the problem is in production. You see, we budgeted to produce 20,000 units each quarter, but a strike in one of our supplier's plants forced us to cut production back to only 14,000 units in the second quarter. That's what caused the drop in net operating income.”

Mr. Ovard was angered by the controller's explanation. “I call you in here to find out why income dropped when sales went up, and you talk about production! So what if production was off? What does that have to do with the sales that we made? If sales go up, then income ought to go up. If your statements can't show a simple thing like that, then we're due for some changes in your area!”

Budgeted production and sales for the year, along with actual production and sales for the first two quarters, are given below:

	Quarter			
	First	Second	Third	Fourth
Budgeted sales (units)	16,000	20,000	20,000	24,000
Actual sales (units)	16,000	20,000	-	-
Budgeted production (units)	20,000	20,000	20,000	20,000
Actual production (units)	20,000	14,000	-	-

The company's plant is heavily automated, so fixed manufacturing overhead costs total £800,000 per quarter. Variable manufacturing costs are £30 per unit. The fixed manufacturing overhead cost is applied to units of product at the rate of £40 per unit (based on the budgeted production shown above). Any underapplied or overapplied overhead is closed directly to cost of goods sold for the quarter.

The company had 3,000 units in inventory to start the first quarter and uses the FIFO inventory flow assumption. Variable selling and administrative expenses are £5 per unit sold.

Required:

1. What characteristic of absorption costing caused the drop in net operating income for the second quarter and what could the controller have said to explain the problem?
2. Prepare a contribution format income statement for each quarter using variable costing.
3. Reconcile the absorption costing and the variable costing net operating income figures for each quarter.
4. Identify and discuss the advantages and disadvantages of using the variable costing method for internal reporting purposes.
5. Assume that the company had introduced Lean Production methods at the beginning of the second quarter, resulting in zero ending inventory. (Sales and production during the first quarter were as shown above.)
   a. How many units would have been produced during the second quarter under Lean Production?
   b. Starting with the third quarter, would you expect any difference between the net operating income reported under absorption costing and under variable costing? Explain why there would or would not be any difference.