[50 minutes] 11120

Cama Products is a decentralized furniture manufacturer. The divisions are autonomous with each division responsible for its own sales, costs of operations, working capital management, and equipment acquisition. Each division operates in a different market in the furniture industry. Because the markets and products of the divisions are so different, there have never been any transfers between divisions.

The Commercial division manufactures furniture that is purchased by the restaurant industry. The division plans to introduce a new line of counter units that features a cushioned seat for the counter chairs. Magnus Pym, the Commercial division manager has discussed the manufacture of the cushioned seats with Joe Axel of the Office division. They both believe that a cushioned seat currently made by the Office division for use on its office stools could be modified for use on the new counter chairs. Consequently, Pym has asked for a price quote for 150-unit lots of the cushioned seats. The following conversation took place about the price to be charged for the cushioned seats.

Axel: Magnus, we can easily make the cushioned seats for you. The material costs should be around $7.50 per unit. The labor time required should be 0.5 direct labor hours per unit. Since the operations are similar to my existing products, I would price the cushioned seats similarly - full cost plus 20 percent markup.

Pym: That's higher than I expected, Joe. I was thinking that a good price would be your variable manufacturing costs. After all, your capacity costs will be incurred regardless of this job.

Axel: Magnus, I'm at capacity. If I make cushioned seats for you, I'll have to cut production elsewhere. The available labor time is fixed and overtime is not a feasible alternative at this time. Fortunately I can switch labor between the two products we are currently making - the deluxe chairs and the economy chairs. At this juncture it is not prudent to expand capacity. I would like to sell to you at variable costs but I have excess demand definitely for the deluxe chairs, if not for the economy chairs at the current prices. I don't mind changing the product mix if I get some return on the seats that I make for you. Here are my standard costs and overhead rates. [See exhibits 1 and 2].

Pym: I guess I see your point Joe, but I don't want to price myself out of the market. Maybe we should talk to the corporate staff to see if they can give any guidance.

Questions

1. As a member of Cama Product's corporate staff, you suggested that they consider using a transfer price based on variable outlay costs plus opportunity costs. Compute such a transfer price for a 150-unit lot of cushioned seats. You can assume that the Office division currently produces and sells both the Deluxe and Economy chairs in large quantities and if Axel offers to produce the cushions for Pym, he can cut the production of either of the two current products.

2. What is the full cost of the cushioned seats and what is the price based on the standard markup of 20%? How does this price differ from the first transfer price (answer to Question 1) ?

3 Joe Axel suddenly dropped a bombshell. The cushion raw materials are used only in the deluxe model and for the short term, the supply of cushion raw materials is fixed. So, if he makes 150 cushions for the Commercial division, he has to cut the output of deluxe chairs by 150 units. Faced with this situation Magnus Pym, the Commercial division manager, suggested that the Office division reduce the deluxe chair output and produce more economy chairs and cushioned seats for the commercial division. He offered to take all the additional economy chairs produced at the current price, as he felt that he could persuade some of his commercial customers to take the economy chairs.

Compute a transfer price for a 150-unit lot of cushioned seats using the rule: transfer price equals variable incremental costs plus opportunity costs.

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Exhibit 1			
Product		**Deluxe**	**Economy**
Direct labor hours per unit (DLH)		1.50	1.00
Costs			
Materials		$15.00	$15.00
Labor	$10.00 / DLH	$15.00	$10.00
Overhead	$12.00 / DLH	$18.00	$12.00
Full cost per unit		$48.00	$37.00
Markup	20.00%	$9.60	$7.40
Price		$57.60	$44.40

Exhibit 2	
Total variable overhead	$120,000
Total fixed overhead	$240,000
Total overhead	$360,000
Denominator volume in DLH	30,000
Total overhead rate per DLH	$ 12.00