Problem 12-25 (60 minutes)

1.

	Total Company	Cook-book	Travel Guide	Handy Speller
Sales	$300,000	$90,000	$150,000	$60,000
Variable expenses:				
Printing cost	102,000	27,000	63,000	12,000
Sales commissions	30,000	9,000	15,000	6,000
Total variable expenses	132,000	36,000	78,000	18,000
Contribution margin	168,000	54,000	72,000	42,000
Traceable fixed expenses:				
Advertising	36,000	13,500	19,500	3,000
Salaries	33,000	18,000	9,000	6,000
Equipment depreciation*	9,000	2,700	4,500	1,800
Warehouse rent**	12,000	1,800	6,000	4,200
Total traceable fixed expenses	90,000	36,000	39,000	15,000
Product line segment margin	78,000	$18,000	$ 33,000	$27,000
Common fixed expenses:				
General sales	18,000			
General administration	42,000			
Depreciation—office facilities	3,000			
Total common fixed expenses	63,000			
Net operating income	$ 15,000			

* $9,000 × 30%, 50%, and 20%, respectively.

** $48,000 square feet × $3 per square foot = $144,000; $144,000 ÷ 12 months = $12,000 per month. $12,000 ÷ 48,000 square feet = $0.25 per square foot per month.
$0.25 per square foot × 7,200 square feet = $1,800; $0.25 per square foot × 24,000 square feet = $6,000; and $0.25 per square foot × 16,800 square feet = $4,200.

Problem 12-25 (continued)

2. a. No, the cookbook line should not be eliminated. The cookbook is covering all of its own costs and is generating an $18,000 segment margin toward covering the company's common costs and toward profits. (Note: Problems relating to the elimination of a product line are covered in more depth in the next chapter.)

   b.

	Cook-book	*Travel Guide*	*Handy Speller*
Contribution margin (a)	$54,000	$72,000	$42,000
Sales (b)	$90,000	$150,000	$60,000
Contribution margin ratio (a) ÷ (b)	60%	48%	70%

It is probably unwise to focus all available resources on promoting the travel guide. The company is already spending more on the promotion of this product than on the other two products combined. Furthermore, the travel guide has the lowest contribution margin ratio of the three products. Therefore, a dollar of sales of the travel guide generates less profit than a dollar of sales of either of the two other products. Nevertheless, we cannot say for sure which product should be emphasized in this situation without more information. The problem states that there is ample demand for all three products, which suggests that there is no idle capacity. If the equipment is being fully utilized, increasing the production of any one product would require cutting back production of the other products. In the next chapter we will discuss how to choose the most profitable product when a production constraint forces such a trade-off among products.