Cost-Volume-Profit Relationships

201. Candice Corporation has decided to introduce a new product. The product can be manufactured using either a capital-intensive or labor-intensive method. The manufacturing method will not affect the quality or sales of the product. The estimated manufacturing costs of the two methods are as follows:

	Capital-Intensive	Labor-Intensive
Variable manufacturing cost per unit.....	$14.00	$17.60
Fixed manufacturing cost per year.....	$2,440,000	$1,320,000

The company's market research department has recommended an introductory selling price of $30 per unit for the new product. The annual fixed selling and administrative expenses of the new product are $500,000. The variable selling and administrative expenses are $2 per unit regardless of how the new product is manufactured.

Required:

a. Calculate the break-even point in units if Candice Corporation uses the:

1. capital-intensive manufacturing method.
2. labor-intensive manufacturing method.

b. Determine the unit sales volume at which the net operating income is the same for the two manufacturing methods.

c. Assuming sales of 250,000 units, what is the degree of operating leverage if the company uses the:

1. capital-intensive manufacturing method.
2. labor-intensive manufacturing method.

d. What is your recommendation to management concerning which manufacturing method should be used?

206. In September, Pino Corporation sold 2,100 units of its only product. Its total sales were $195,300, its total variable expenses were $84,000, and its total fixed expenses were $98,700.

Required:

a. Construct the company's contribution format income statement for September in good form.

b. Redo the company's contribution format income statement assuming that the company sells 2,300 units.

211. Parkins Company produces and sells a single product. The company's income statement for the most recent month is given below:

Sales (6,000 units at $40 per unit)		$240,000
Less manufacturing costs:		
Direct materials	$48,000	
Direct labor (variable)	60,000	
Variable factory overhead	12,000	
Fixed factory overhead	30,000	150,000
Gross margin		90,000
Less selling and other expenses:		
Variable selling and other expenses	24,000	
Fixed selling and other expenses	42,000	66,000
Net operating income		$ 24,000

There are no beginning or ending inventories.

Required:

a. Compute the company's monthly break-even point in units of product.

b. What would the company's monthly net operating income be if sales increased by 25% and there is no change in total fixed expenses?

c. What dollar sales must the company achieve in order to earn a net operating income of $50,000 per month?

d. The company has decided to automate a portion of its operations. The change will reduce direct labor costs per unit by 40 percent, but it will double the costs for fixed factory overhead. Compute the new break-even point in units.