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| DECISION MAKING ACROSS THE ORGANIZATION  Martinez Company has decided to introduce a new product. The new product can be manufactured by either a capital-intensive method or a labor-intensive method. The manufacturing method will not affect the quality of the product. The estimated manufacturing costs by the two methods are as follows.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | Capital-Intensive | Labor-Intensive | | --- | --- | --- | | Direct materials | $5 per unit | $5.50 per unit | | Direct labor | $6 per unit | $8.00 per unit | | Variable overhead | $3 per unit | $4.50 per unit | | Fixed manufacturing costs | $2,508,000 | $1,538,000 | | |   Martinez's market research department has recommended an introductory unit sales price of $30. The incremental selling expenses are estimated to be $502,000 annually plus $2 for each unit sold, regardless of manufacturing method.  Instructions  With the class divided into groups, answer the following.   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (a) | Calculate the estimated break-even point in annual unit sales of the new product if Martinez Company uses the:   |  |  | | --- | --- | |  | | |  | |  |  | | --- | --- | | 1. | Capital-intensive manufacturing method. | | 2. | Labor-intensive manufacturing method. | | |  | | | | (b) | Determine the annual unit sales volume at which Martinez Company would be indifferent between the two manufacturing methods. |  |  |  | | --- | --- | | (c) | Explain the circumstance under which Martinez should employ each of the two manufacturing methods.  (CMA adapted) | | |
| BYP18-2 | MANAGERIAL ANALYSIS  The condensed income statement for the Sally and Terry partnership for 2012 is as follows.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | SALLY AND TERRY COMPANY  Income Statement  For the Year Ended December 31, 2012 | | | | --- | --- | --- | | Sales (200,000 units) |  | $1,200,000 | | Cost of goods sold |  | 800,000 | | Gross profit |  | 400,000 | | Operating expenses |  |  | | Selling | $280,000 |  | | Administrative | 160,000 | 440,000 | | Net loss |  | ($40,000) | | |   A cost behavior analysis indicates that 75% of the cost of goods sold are variable, 50% of the selling expenses are variable, and 25% of the administrative expenses are variable.  Instructions  (Round to nearest unit, dollar, and percentage, where necessary. Use the CVP income statement format in computing profits.)   |  |  | | --- | --- | | (a) | Compute the break-even point in total sales dollars and in units for 2012. | | (b) | Sally has proposed a plan to get the partnership “out of the red” and improve its profitability. She feels that the quality of the product could be substantially improved by spending $0.25 more per unit on better raw materials. The selling price per unit could be increased to only $6.25 because of competitive pressures. Sally estimates that sales volume will increase by 30%. What effect would Sally's plan have on the profits and the break-even point in dollars of the partnership? (Round the contribution margin ratio to two decimal places.) |  |  |  | | --- | --- | | (c) | Terry was a marketing major in college. He believes that sales volume can be increased only by intensive advertising and promotional campaigns. He therefore proposed the following plan as an alternative to Sally's: (1) Increase variable selling expenses to $0.79 per unit, (2) lower the selling price per unit by $0.30, and (3) increase fixed selling expenses by $35,000. Terry quoted an old marketing research report that said that sales volume would increase by 60% if these changes were made. What effect would Terry's plan have on the profits and the break-even point in dollars of the partnership? | | (d) | Which plan should be accepted? Explain your answer. | |