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| DECISION MAKING ACROSS THE ORGANIZATIONMartinez 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.

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|   | 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 |

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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.InstructionsWith 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:

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|  |  |
| --- | --- |
| 1.    | Capital-intensive manufacturing method. |
| 2.    | Labor-intensive manufacturing method. |

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| (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) |

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| BYP18-2   | MANAGERIAL ANALYSISThe condensed income statement for the Sally and Terry partnership for 2012 is as follows.

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| SALLY AND TERRY COMPANYIncome StatementFor 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) |

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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. |

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