|  |
| --- |
| Vega Foods, Inc., has recently purchased a small mill that it intends to operate as one of its subsidiaries. The newly acquired mill has three products that it offers for sale—wheat cereal, pancake mix, and flour. Each product sells for $10 per package. Materials, labor, and other variable production costs are $5.00 per bag of wheat cereal, $6.20 per bag of pancake mix, and $3.20 per bag of flour. Sales commissions are 10% of sales for any product. All other costs are fixed. |
| The mill’s income statement for the most recent month is given below: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |   |   |   | Product Line |
|   | TotalCompany | WheatCereal | PancakeMix | Flour |
|   Sales | $ | 1,200,000 |   | $ | 400,000 |   | $ | 500,000 |   | $ | 300,000 |   |
|   |  |  |  |  |  |  |  |  |  |  |  |  |
|   Expenses: |   |   |   |   |   |   |   |   |   |   |   |   |
|        Materials, labor, and other |   | 606,000 |   |   | 200,000 |   |   | 310,000 |   |   | 96,000 |   |
|        Sales commissions |   | 120,000 |   |   | 40,000 |   |   | 50,000 |   |   | 30,000 |   |
|        Advertising |   | 129,800 |   |   | 65,000 |   |   | 40,000 |   |   | 24,800 |   |
|        Salaries |   | 115,000 |   |   | 49,000 |   |   | 15,000 |   |   | 51,000 |   |
|        Equipment depreciation |   | 60,000 |   |   | 20,000 |   |   | 25,000 |   |   | 15,000 |   |
|        Warehouse rent |   | 24,000 |   |   | 8,000 |   |   | 10,000 |   |   | 6,000 |   |
|        General administration |   | 90,000 |   |   | 30,000 |   |   | 30,000 |   |   | 30,000 |   |
|   |  |  |  |  |  |  |  |  |  |  |  |  |
|   Total expenses |   | 1,144,800 |   |   | 412,000 |   |   | 480,000 |   |   | 252,800 |   |
|   |  |  |  |  |  |  |  |  |  |  |  |  |
|   Net operating income (loss) | $ | 55,200 |   | $ | (12,000) |   | $ | 20,000 |   | $ | 47,200 |   |
|   |  |  |  |  |  |  |  |  |  |  |  |  |
|  |

|  |
| --- |
| The following additional information is available about the company: |

|  |  |
| --- | --- |
| a. | The same equipment is used to mill and package all three products. In the above income statement, equipment depreciation has been allocated on the basis of sales dollars. An analysis of equipment usage indicates that it is used 30% of the time to make wheat cereal, 50% of the time to make pancake mix, and 20% of the time to make flour. |
| b. | All three products are stored in the same warehouse. In the above income statement, the warehouse rent has been allocated on the basis of sales dollars. The warehouse contains 48,000 square feet of space, of which 8,000 square feet are used for wheat cereal, 14,000 square feet are used for pancake mix, and 26,000 square feet are used for flour. The warehouse space costs the company $0.50 per square foot per month to rent. |
| c. | The general administration costs relate to the administration of the company as a whole. In the above income statement, these costs have been divided equally among the three product lines. |
| d. | All other costs are traceable to the product lines. |

|  |
| --- |
| Vega Foods’ management is anxious to improve the mill’s 4.60% margin on sales. |

|  |
| --- |
| **Required:** |

|  |  |
| --- | --- |
| **1.** | Prepare a new contribution format segmented income statement for the month. Adjust the allocation of equipment depreciation and warehouse rent as indicated by the additional information provided. **(Input all amounts as positive values except losses which should be indicated by a minus sign. Round your final answers to the nearest dollar amount.)** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |           Total         Company |           Wheat         Cereal |           Pancake         Mix |           Flour |
|    | $    | $    | $    | $    |
|   |  |  |  |  |
|   Variable expenses: |   |   |   |   |
|         |    |    |    |    |
|         |    |    |    |    |
|   |  |  |  |  |
|   Total variable expenses |    |    |    |    |
|   |  |  |  |  |
|    |    |    |    |    |
|   |  |  |  |  |
|   Traceable fixed expenses: |   |   |   |   |
|         |    |    |    |    |
|         |    |    |    |    |
|         |    |    |    |    |
|         |    |    |    |    |
|   |  |  |  |  |
|   Total traceable fixed expenses |    |    |    |    |
|   |  |  |  |  |
|    | $    | $    | $    | $    |
|   |   |  |  |  |
|   Common fixed expenses: |   |   |   |   |
|         |    |   |   |   |
|   |  |   |   |   |
|    | $    |   |   |   |
|   |  |   |   |   |
|  |

|  |  |
| --- | --- |
| **2.** | After seeing the income statement in the main body of the problem, management has decided to eliminate the wheat cereal because it is not returning a profit, and to focus all available resources on promoting the pancake mix. |

|  |
| --- |
| Based on the statement you have prepared, do you agree with the decision to eliminate the wheat cereal? |
|   |
|

|  |  |
| --- | --- |
|  | No |
|  | Yes |

 |