P12-14 Prepare a contribution margin format income statement; answer what-if questions [LO 7, 8, 9, 12]

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| Shown here is an income statement in the traditional format for a firm with a sales volume of 20,000 units: |

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| Revenues | $ | 160,000 |  |
| Cost of goods sold ($16,000 + $3.20/unit) |  | 80,000 |  |
|  |  |  |  |
| Gross profit | $ | 80,000 |  |
| Operating expenses: |  |  |  |
| Selling ($4,500 + $1.40/unit) |  | 32,500 |  |
| Administration ($7,500 + $1.00/unit) |  | 27,500 |  |
|  |  |  |  |
| Operating income | $ | 20,000 |  |
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|  | | | |

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| **Requirement 1:** |
| Prepare an income statement in the contribution margin format. **(Omit the "$" sign in your response.)** |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  | $ |
| Variable expenses: |  |  |
|  | $ |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Total variable expenses |  |  |
|  |  |  |
| Contribution margin |  | $ |
| Fixed expenses: |  |  |
|  | $ |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Total fixed expenses |  |  |
|  |  |  |
|  |  | $ |
|  |  |  |
|  | | |

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| **Requirement 2:** |
| Calculate the contribution margin per unit and the contribution margin ratio. **(Round your answers to 1 decimal place. Omit the "$" and "%" signs in your response.)** |

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| --- | --- |
| Contribution margin per unit | $ |
| Contribution margin ratio | % |

|  |  |
| --- | --- |
| **Requirement 3:** | |
| **(a)** | Calculate the firm's operating income (or loss) if the volume changed from 20,000 units to 25,000 units. **(Input the amount as positive value. Omit the "$" sign in your response.)** |

|  |  |
| --- | --- |
|  | $ |

|  |  |
| --- | --- |
| **(b)** | Calculate the firm's operating income (or loss) if the volume changed from 20,000 units to 11,000 units. **(Input the amount as positive value. Omit the "$" sign in your response.)** |

|  |  |
| --- | --- |
|  | $ |

|  |  |
| --- | --- |
| **Requirement 4:** | |
| Refer to your answer to requirement 1 when total revenues were $160,000. | |
| **(a)** | Calculate the firm's operating income (or loss) if unit selling price and variable expenses do not change, and total revenues increase by $18,000. **(Input the amount as positive value. Omit the "$" sign in your response.)** |

|  |  |
| --- | --- |
|  | $ |

|  |  |
| --- | --- |
| **(b)** | Calculate the firm's operating income (or loss) if unit selling price and variable expenses do not change, and total revenues decrease by $12,000. **(Input the amount as positive value. Omit the "$" sign in your response.)** |

|  |  |
| --- | --- |
|  | $ |