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

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| --- | --- | --- |
|   |   |   |
|    |   | $   |
| 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 | %   |

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| **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.)** |

|  |  |
| --- | --- |
|    | $   |

|  |
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| **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.)** |

|  |  |
| --- | --- |
|    | $   |