Mo began her rent a room scheme, as part of a plan to make her richer quicker, some years back. She began letting out her spare bedroom on an informal basis, but the business has started to incur an increasing amounts of costs, due to more rules and regulations in the industry. Mo is now concerned as to whether the enterprise is making her any money.

**Selected financial information**

<table>
<thead>
<tr>
<th>Selling price</th>
<th>Year 1 (£)</th>
<th>Year 2 (£)</th>
<th>Year 3 (£)</th>
<th>Year 4 (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sales</td>
<td>500</td>
<td>500</td>
<td>600</td>
<td>500</td>
</tr>
<tr>
<td>Variable costs</td>
<td>4000</td>
<td>5000</td>
<td>9000</td>
<td>12500</td>
</tr>
<tr>
<td>Fixed Costs</td>
<td>600</td>
<td>600</td>
<td>750</td>
<td>1000</td>
</tr>
<tr>
<td>Business rates</td>
<td>600</td>
<td>600</td>
<td>750</td>
<td>1000</td>
</tr>
<tr>
<td>Water</td>
<td>600</td>
<td>600</td>
<td>750</td>
<td>1000</td>
</tr>
<tr>
<td>Insurance</td>
<td>1200</td>
<td>1200</td>
<td>1500</td>
<td>2000</td>
</tr>
</tbody>
</table>

**Cash flow information for Mo’s business**

<table>
<thead>
<tr>
<th>Opening balance</th>
<th>Cash in</th>
<th>Sales</th>
<th>Total inflows</th>
<th>Cash out</th>
<th>Advertising</th>
<th>Cleaning equipment</th>
<th>Insurance</th>
<th>Total outflows</th>
<th>Net cash flow</th>
<th>Closing Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month 1 (£)</td>
<td>Month 1 (£)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1210)</td>
<td>1000</td>
<td>1200</td>
<td>1000</td>
<td>1200</td>
<td>310</td>
<td>2000</td>
<td>500</td>
<td>100</td>
<td>500</td>
<td>(1210)</td>
</tr>
</tbody>
</table>

1. Calculate the variable cost per unit for Year 1.
2. Calculate the total fixed costs for each year.
3. Calculate the percentage of total costs that are fixed in Year 1.
4. For each year, calculate the break-even point.
5. State which year has the best break-even point.
6. Discuss how the business could improve its break-even position.
7. Calculate the impact of a rise in variable costs of 20% on the break-even position in year 1.
8. Discuss how the business could manage cost increases in the future.
10. Calculate the total outflows for both months 1 and 2.
11. Using the cash flow data, calculate the net cash flow for months 1 and 2.
12. Calculate the closing balance of month 2.
13. Explain one way the business might improve its closing balance in month 1 and 2.
14. Assess the importance to a business of creating a cash flow forecast.
1. Calculate the variable cost per unit for Year 1.
   \[
   \frac{4,000}{500} = 8
   \]

2. Calculate the total fixed costs for each year.
   Year 1 = £2,400; Year 2 = £2,400; Year 3: £3,000; Year 4: £4,000

3. Calculate the percentage of total costs that are fixed in Year 1.
   \[
   \frac{2400}{4000} = 60\\\%
   \]

4. For each year, calculate the break-even point.
   Year 1: 200 units; Year 2: 240 units; Year 3: 200 units; Year 4: 400 units

5. State which year has the best break-even point.
   Years 1 and 3, as they have the lowest break-even figure

6. Discuss how the business could improve its break-even position.
   Increase selling price, reduce variable costs and/or fixed costs by cutting out unnecessary expenditure.

7. Calculate the impact of a rise in variable costs of 20% on the break-even position in Year 1.
   \[
   4,000 \times 1.20 = 4800 / 500 = 9.60. \]
   \[
   20 - 9.60 = 10.40. \]
   \[
   \frac{2400}{10.40} = 231 \text{ units}
   \]
   Extra 31 units need to be sold in order to break-even if variable costs rose by 20%.

8. Discuss how the business could manage cost increases in the future.
   Ensure the business is run as efficiently as possible, shop around for insurance quotes, review expenditure on variable costs to ensure that any cost savings are gained, increase selling prices to counteract any increases in costs.

   £600

10. Calculate the total outflows for both months 1 and 2.
    Month 1: £2,810, Month 2: £470

11. Using the cash flow data, calculate the net cash flow for months 1 and 2.
    Month 1: (£1,810); Month 2: £730

12. Calculate the closing balance of month 2.
    (£480)

13. Explain one way the business might improve its closing balance in month 1 and 2.
    Increase inflows eg: sources of finance or increased sales or reduce outflows by cutting costs such as advertising or cleaning equipment in month 1.

14. Assess the importance to a business of creating a cash flow forecast.
    Identifies shortfalls of cash, allowing the business to take appropriate action to ensure the business has enough cash to keep trading e.g. organise an overdraft; the cash flow forecast is a prediction and therefore the figures need to be based on reliable data.

Time to review your learning...
List three content points that you are confident with and three that require some attention.

<table>
<thead>
<tr>
<th>Confident with</th>
<th>Requires attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
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</table>