**4** DP Limited is a large manufacturing and retailing company. The following information is available.

| | |
|---|---|
| Current selling price per unit | $3.60 |
| Current weekly sales | 2 000 units |
| Contribution margin | 45% |

**REQUIRED**

**(a)** Calculate the **total** contribution that the company would earn over the four-week period.

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**Additional information**

The directors are planning to hold a four week price promotion on its most popular product.

The directors plan to reduce the selling price of the product by 20% over the whole four weeks of the promotion. They forecast that **additional** sales of the product will be 150% of the current sales.

The company will incur additional fixed costs of $6000 to run the promotion. The directors forecast that unit variable costs will remain as they currently are.

**REQUIRED**

**(b)** Calculate the **total** forecast units to be sold if the directors proceed with the promotion.

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**(c)** Calculate the **additional** profit or loss if the company proceeds with the promotion.

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**(d)** Calculate the percentage by which current unit sales must increase for the promotion to break even.

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**(e)** Advise the directors whether or not they should proceed with the promotion. Justify your answer using **both** financial and non-financial factors.

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**(f)** Explain the purpose of cost–volume–profit analysis.

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**(g)** State **four** assumptions of cost–volume–profit analysis.

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**Additional information**

The directors provide the following information for the manufacturing part of the business:

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|---|---|
| Budgeted labour hours | 26 400 hours |
| Budgeted machine hours | 10 500 hours |
| Actual labour hours | 22 300 hours |
| Actual machine hours | 11 400 hours |
| Budgeted overheads | $445 000 |
| Actual overheads | $420 000 |

**REQUIRED**

**(h)** **(i)** Calculate an appropriate overhead absorption rate for the business.

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**(ii)** Explain **one** limitation of absorption costing.

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