4 G Limited produces a single product and uses break-even analysis.

REQUIRED

(a) State what is meant by the term 'break-even point'.

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(b) State **three** uses of marginal costing.

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[3]

Additional information

The company's factory is operating at full capacity and produces 5000 units a year. All units produced are sold. Its break-even point has been calculated as 2400 units.

Budgeted information for current production is as follows.

Per unit	
direct materials	4 kilos at $6 per kilo
direct labour	8 hours at $10 per hour
variable overheads	$12 per unit

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Annual revenue	1 000 000
Total annual fixed costs	201 600
Profit for the year	218 400

The company has the opportunity to buy some land so that the factory could be extended. The directors believe the company could sell 8000 units a year if the selling price was reduced.

If the factory was extended and production increased, the directors estimate the following changes would take place.

The selling price would be reduced by $5 per unit.
The price of direct materials would fall to $5.80 per kilo.
The direct labour rate would rise to $10.80 per hour.
Total fixed costs would increase by 50%.

REQUIRED

(c) Suggest a reason for:

(i) the decrease in the direct material price

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(ii) the increase in the direct labour rate.

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(d) Explain why fixed costs might increase by 50%.

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(e) Calculate:

(i) the profit for the year if the expansion went ahead

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(ii) the profit per unit if the expansion went ahead

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(iii) the contribution to sales ratio if the expansion went ahead.

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(f) Calculate the revised break-even point. Express your answer in terms of **both** revenue and units.

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.... [3]

Additional information

The purchase of land and site development would be financed with a long-term loan.

REQUIRED

(g) Explain how the proposed expansion of the factory might affect the shareholders' view of the safety of their investment.

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(h) Advise the directors whether or not they should proceed with the expansion of the factory. Justify your answer.

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