4 V Limited is a manufacturing company which uses marginal costing.

REQUIRED

(a) Define:

marginal cost

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contribution

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break-even point.

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[3]

Additional information

The following information is available for a single type of product made at one of the company's factories.

Per unit	$
Selling price	52
Direct materials	16
Direct labour	18

Fixed costs per month are $36 900. Maximum output per month is 2500 units. The factory operates at full capacity.

REQUIRED

(b) Calculate the break-even point:

(i) in units

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(ii) in sales value.

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Additional information

The directors plan to increase factory capacity to meet increased demand. The following details are available.

1 Factory capacity will be increased by 15%.

2 Additional machinery will be required at a cost of $72 000.

3 Machinery is depreciated at 20% per annum on cost.

4 The directors will apply for a bank loan of $60 000 at 8% per annum interest to finance the cost of the additional machinery.

5 Direct materials will cost less per unit as a result of buying in greater bulk. Suppliers currently give a 20% trade discount but will give a 25% trade discount in future.

6 Direct labour costs and selling price will remain unchanged.

REQUIRED

(c) Calculate the increase in the **monthly** margin of safety **in units**, assuming all production is sold.

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Additional information

V Limited produces a different single type of product at **another** factory.

The following details are available:

Selling price per unit	$26
Contribution per unit	$8
Fixed costs per month	$52 000
Factory capacity per month	18 000 units

Currently the factory is operating at 85% capacity. All products are sold to regular customers.

The directors are considering accepting an order from a new customer. The following details are available:

1 The order is for 4200 units per month.

2 The customer is considering making a regular order for this quantity.

3 The customer wishes the product to be packaged differently. This will add $0.50 per unit to variable costs and will require investment in new machinery, adding $1000 per month to fixed costs.

4 The customer has offered to pay $24 per unit.

The directors are considering two options.

Option A: Reject the order from the new customer.

Option B: Accept the order from the new customer, operate the factory at full capacity and reduce the number of units supplied to regular customers.

REQUIRED

(d) Calculate the profit per month to be made under each option.

(i) Option A

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(ii) Option B

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(e) Advise the directors which option they should choose. Justify your answer by considering **both** financial and non-financial factors.

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(f) Explain **two** advantages to a business of using absorption costing.

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