

- 4 Bruna Limited is a manufacturing company. It operates three production departments and two service departments. The costs are allocated to each department as follows:

	Production departments			Service departments	
	Machining	Assembly	Finishing	Stores	Canteen
	\$	\$	\$	\$	\$
Indirect labour	253 000	290 000	340 100	52 000	78 000
Other indirect overhead costs	205 000	90 000	225 000	88 000	92 000

The service departments costs are allocated to the production departments as follows:

Stores in proportion to the number of stores requisitions

Canteen in proportion to number of employees.

The following information is available:

	Machining	Assembly	Finishing
Direct labour hours	15 000	60 000	40 000
Machine hours	45 000	30 000	25 000
Number of employees	5	6	9
Number of stores requisitions	6 300	4 500	7 200

## REQUIRED

- (a) Calculate, to **two** decimal places, a suitable overhead absorption rate for **each** of the **three** production departments.

[illegible]

### Additional information

Bruna Limited has been approached by a customer to quote for one of their products. This will require the following:

Direct materials	20 kilos at \$5 per kilo
Direct labour	10 hours at \$9 per hour

Direct labour hours and machine hours required in each department will be:

	Machining	Assembly	Finishing
Direct labour hours	5	3	2
Machine time	2 hours	30 minutes	20 minutes

It is the company's practice to achieve a gross margin of 40% on all its products.

## REQUIRED

**(b)** Calculate the total price to quote to the customer.

[7]

### Additional information

The directors are considering changing from departmental overhead absorption rates to one factory-wide rate.

### REQUIRED

(c) Advise the directors whether or not they should make this change. Justify your answer.

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(d) Explain how over absorption **and** under absorption of overheads can affect the profit of a manufacturing business.

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