Source B for Question 2

GM Limited manufactures two products: Mini and Grand. Information for the previous year is as follows:

1 Direct costs were:

	Mini	Grand
	$	$
Direct material	148 000	282 000
Direct labour	57 000	93 000

2 Manufacturing overheads of $192 000 were traditionally apportioned to both products, based on direct labour hours. To price each product, the company added 90% to the total manufacturing cost.

3 Other information:

	Mini	Grand
Units produced and sold	5 000	3 600
Labour hours	6 600	11 000
Machine hours	25 000	19 600
Material orders	95	55
Inspection hours	810	880

2 Read Source B in the insert.

(a) Calculate, to **two** decimal places, the unit selling price for **each** product using the traditional method.

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Additional information

The sales volume of Grand was less than expected.

One of the directors has learnt how using activity based costing (ABC) can affect pricing.

A further analysis of the manufacturing overheads is as follows:

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Purchase of material	39 000
Machine processing	129 340
Inspections	23 660

(b) State **three** conditions which should be satisfied before a business may adopt ABC.

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(c) Calculate, to **two** decimal places, the unit selling price for **each** product using ABC.

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Workings:

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(d) Explain the difference in the unit selling price for **each** product as calculated in **(a)** and **(c)**.

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(e) Advise the directors whether or not they should use ABC in the coming year. Justify your answer.

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[Total: 25]

Question	Answer	Marks
2(a)	**Calculate, to <u>two</u> decimal places, the unit selling price for <u>each</u> product using the traditional method.** Units sold: 5 000 (Mini), 3 600 (Grand) Direct material: Mini $148 000, Grand $282 000 Direct labour: Mini $57 000, Grand $93 000 Manufacturing overheads **W1**: Mini $72 000, Grand $120 000 **(1) row** Total manufacturing costs: Mini $277 000, Grand $495 000 **(1) row OF** Manufacturing cost per unit: Mini $55.40, Grand $137.50 **(1) row OF** Profit: Mini $49.86, Grand $123.75 **(1) row OF** Selling price per unit: Mini $105.26, Grand $261.25 **(1) row OF** **W1** $192 000 × 6 600 / 17 600 = $72 000 $192 000 × 11 000 / 17 600 = $120 000	**5**
2(b)	**State <u>three</u> conditions which should be satisfied before a business may adopt ABC.** The business makes different products. **(1)** The business has fixed overhead which can be divided into cost pools. **(1)** The business can identify activities, cost drivers causing the costs/using the resources of the company. **(1)** The business is in a competitive environment and needs accurate cost information to make decision, i.e. setting price **(1)** The business has accounting expertise to set up and implement the system. **(1)** **Max 3** **Accept other valid responses.**	**3**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(c)</td><td>

Calculate, to <u>two</u> decimal places, the unit selling price for <u>each</u> product using ABC.

	Mini $	Grand $	
Direct materials	148 000	282 000	**{**
Direct labour	57 000	93 000	**{(1) OF**
Manufacturing overheads **W1**	108 540	83 460	**(3) row**
Total manufacturing costs	313 540	458 460	**(1) OF row**
Manufacturing cost per unit	62.71	127.35	
Profit	56.44	114.62	**(1) OF row**
Selling price per unit	119.15	241.97	**(1) OF row**

W1

	Mini $	Grand $	
Purchase of materials	24 700	14 300	**(1) row**
Machine processing	72 500	56 840	**(1) row**
Inspections	11 340	12 320	**(1) row**
	108 540	83 460	

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<tr><td>2(d)</td><td>

Explain the difference in the unit selling price for <u>each</u> product as calculated in <u>(a)</u> and <u>(c).</u>

There is a difference in the apportioned manufacturing overheads of each product **(1)**
If ABC is used, comparing to the traditional method, the manufacturing overheads for Mini is higher ($108 540 vs $72 000) but for Grand is lower ($83 460 vs $120 000). **(1)** Selling price is fixed by uplift to costs and not the market forces. **(1)**

Max 3

Accept other valid responses.

</td><td>**3**</td></tr>
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Question	Answer	Marks
2(e)	**Advise the directors whether or not they should use ABC in the coming year. Justify your answer.** For **(Max 3)** Provides realistic cost information as cost drivers focus on what is causing the cost. **(1)** A more reliable selling price should be obtained. **(1)** Grand may have been overpriced by using traditional method of apportioning manufacturing overheads. **(1)** The price of Grand can be reduced from $261.25 to 241.97 making the product more competitive. **(1)** Against **(Max 3)** Collecting, analysing and preparation of activity data is time consuming / costly. **(1)** Specialist is hired / staff are trained to implement ABC. **(1)** It appears that Mini was underpriced. **(1)** If ABC was used, the selling price of Mini can be increased from $105.26 to $119.15, losing its competitiveness however. **(1)** **Decision supported with a comment (1)** **Accept other valid responses**	**7**