3 Mary Smith's sales and costing information for the year ended 31 December 2010 included the following:

Sales (units)	25 000
Selling price per unit	$35
Total costs for the year	$
Direct materials	200 000
Direct labour	250 000
Variable overheads	50 000
Fixed costs	180 000

REQUIRED

(a) Calculate the following for the year ended 31 December 2010.

(i) Contribution per unit

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(ii) Break even output level in units

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(iii) The margin of safety expressed both in units **and** as a percentage of sales.

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(b) State **three** fixed costs a business typically incurs.

(i) ....

.... [1]

(ii) ....

.... [1]

(iii) ....

.... [1]

(c) Explain what is meant by the term 'stepped costs'.

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During 2011 sales (in units) were expected to remain at the 2010 level of 25 000 units.

Mary Smith is in the process of compiling her 2012 budget. Research has indicated a potential increase in sales (in units) of 60% compared with the 2010 level. The company is assuming that selling price **and** all variable costs per unit in 2012 will remain at the 2010 level.

The current production level is 32 000 units per annum.

To increase production further would require:

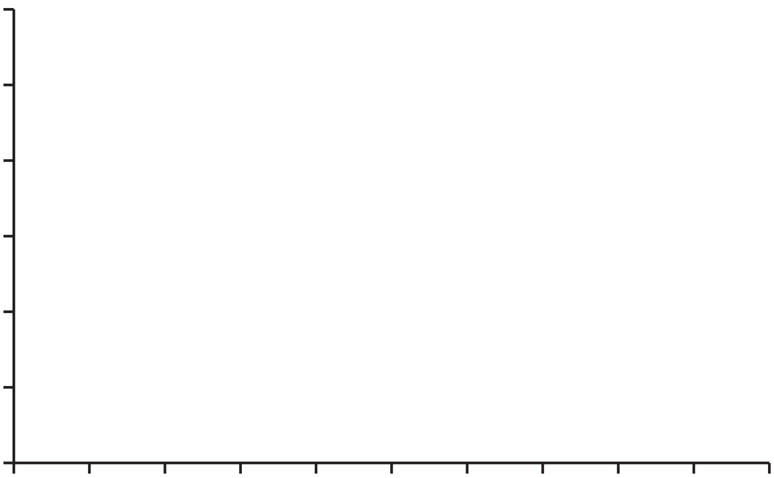
capital investment of $3 000 000;

an increase in fixed costs of $195 000 per annum.

REQUIRED

(d) Prepare **and** label a break-even chart for 2012, taking into account all of the potential amendments.

Use the space below for your workings.



[6]

(e) Increasing production will allow the firm to potentially earn more profit. However, it could pose significant risks to the business.

Evaluate the above statement using your answers to parts **(a)** and **(d)**.

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