ORIGINAL PAGE from A Level Physics 9702, Paper 4, Nov 2023
Fully justified text
Figure is centred on the page

4   A heavy metal sphere of mass 0.81 kg is suspended from a string. The sphere is undergoing small oscillations from side to side, as shown in Fig. 4.1.
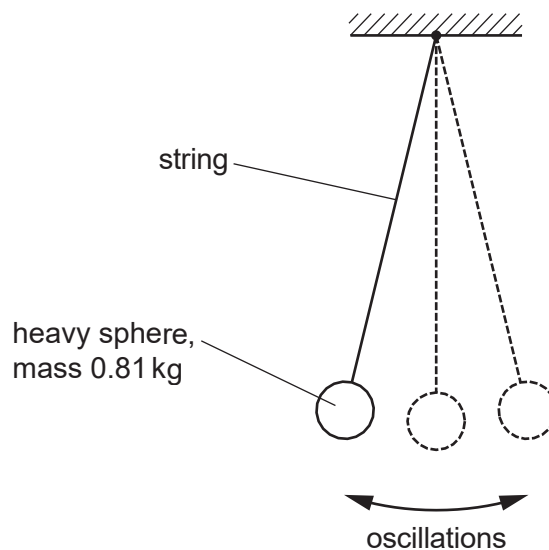

string

heavy sphere,
mass 0.81 kg

oscillations

Fig. 4.1

The oscillations of the sphere may be considered to be simple harmonic with amplitude 0.036 m and period 3.0 s.

(a) State what is meant by simple harmonic motion.

....

....

. ...[2]

(b) Calculate:

(i) the angular frequency of the oscillations

angular frequency = ... rad s^{-1} [2]

ACCESSIBILITY CHANGES APPLIED A Level Physics 9702, Paper 4, Nov 2023
Text now left-aligned
Figure now left-aligned and 'Figure' spelled out in full

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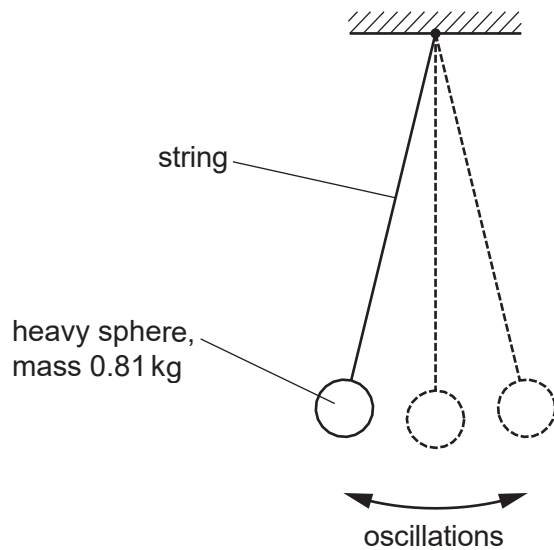

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ORIGINAL page adapted from IGCSE Combined Science 0653, Paper 4, June 2023
Text fully justified
Table centred; table column headings are in non-bold and use capital letters
Prompt words on answer lines in part (c) have capital letters and there is a colon after the words

(b) A study investigates the risk factors for coronary heart disease (CHD).

A sample of people with CHD record the risk factors they have.

Some people in the study record more than one risk factor.

Table 1.1 shows the results.

Table 1.1

Risk factor	Percentage of people recording risk factor
current smoker	24
diet with few fruit and vegetables	64
high alcohol intake	42
lack of physical activity	70
overweight	54

(i) Identify the risk factor recorded by the highest percentage of people.

. ...[1]

(ii) There are 350 people in the study.

Calculate the number of people that record being overweight.

number of people = ...[2]

(iii) The risk factors in Table 1.1 are linked to lifestyle and can be changed.

State **one** risk factor for CHD that is **not** linked to lifestyle.

. ...[1]

(c) Eating more fruit and vegetables is one way to help reduce the risk of CHD.

Explain why eating more fruit and vegetables can also reduce the risk of scurvy and constipation.

Scurvy: ....

....

Constipation: ....

....
[2]

[Total: 10]

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scurvy ....

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2 LCT manufactures cooking pots. It has 16 employees. As a small business LCT uses social media as its method of advertising. The owner, Carole, knows having a good brand image is important. She is analysing LCT's break-even chart. This is shown in Fig. 2.1. Carole is considering possible ways to lower LCT's break-even level of output.
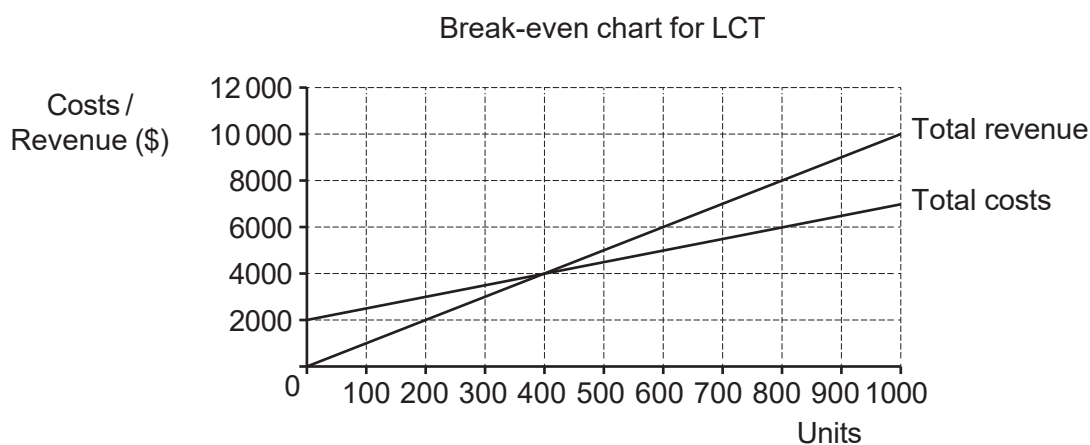
Break-even chart for LCT

Fig. 2.1

(a) Identify **two** limitations of break-even analysis.

Limitation 1: ....

....

Limitation 2: ....

.... [2]

(b) Calculate LCT's profit if it sells 800 units. Show your working.

Working: ....

....

....

Final answer: .... [2]

ACCESSIBILITY CHANGES APPLIED IGCSE Business Studies 0450, Paper 1, Nov 2023
Text now left-aligned
Graph now left-aligned; no capital letters on graph axis labels and labels centred on axis
No capital letters or punctuation on prompt words on answer lines in parts (a) and (b)

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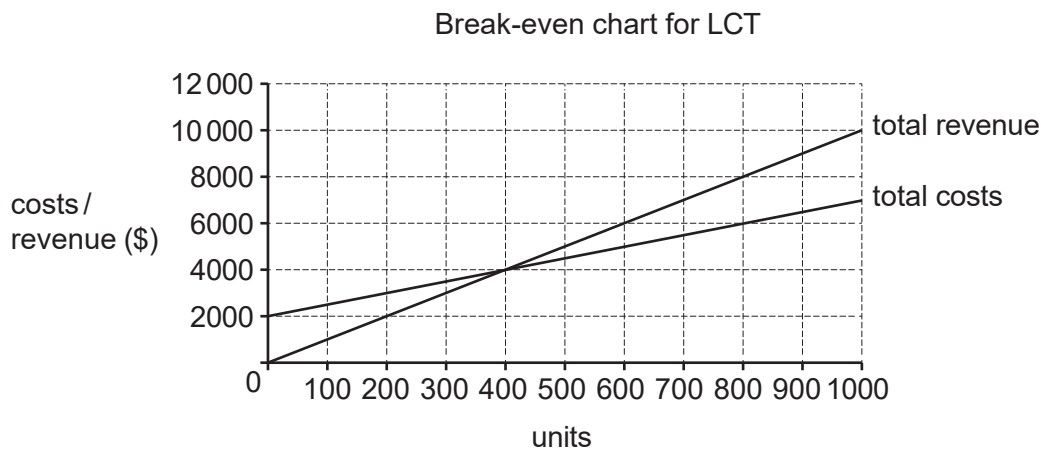
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working ....

....

....

final answer .... [2]