Do not write outside the box

Work and Power

1   The diagram shows a loudspeaker being pushed up a slope onto a platform.

Loudspeaker
20 Kg

F

1.5 m
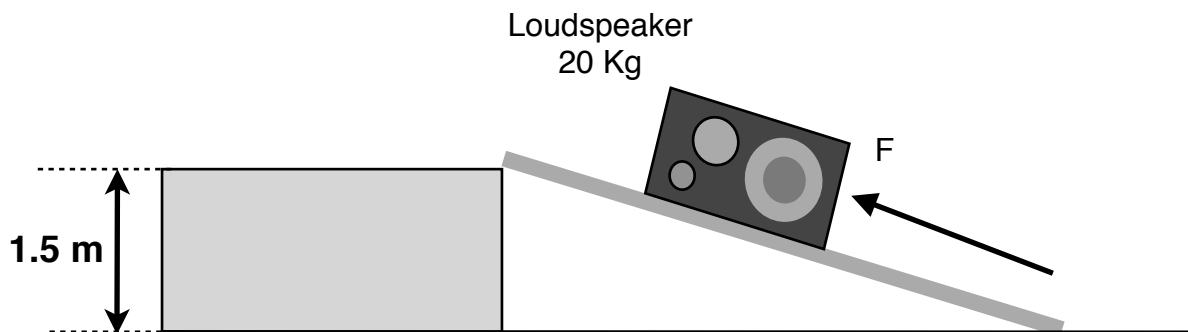
1 (a)   Work is done to move the speaker up the slope. What does the term 'work' mean?

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(1 mark)

1 (b)   The weight of the speaker is 200 N. Calculate the work done to lift the loudspeaker a vertical distance of 1.5 m.

Show your working clearly.

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Work done = …………………… Joules
(2 marks)

1 (c) Two smaller speakers were lifted onto the stage using the same slope. The work done to lift **each** speaker was 45 J and took 10 seconds **per speaker**.

What was the **total** power required to lift the two speakers? Give the correct unit.

Show your working clearly.

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Power = …………………………………
(3 marks)

(Total 6 marks)