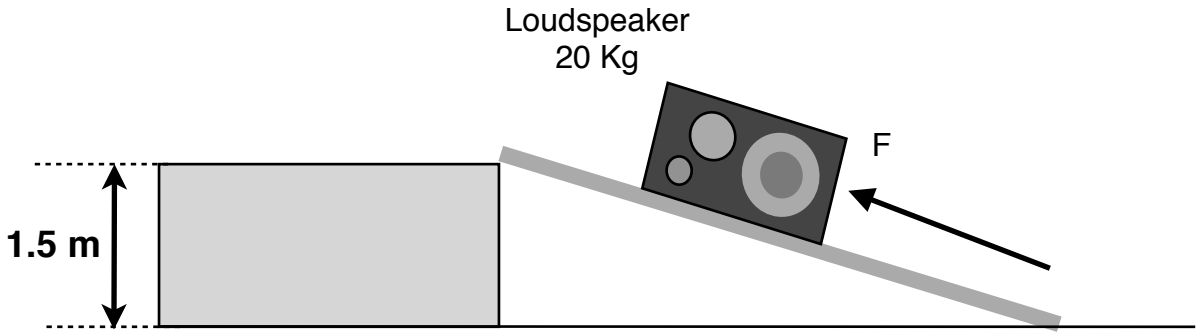
1 The diagram shows a loudspeaker being pushed up a slope onto a platform.



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

Energy transferred

(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. Use the correct equation from the equations sheet.

Show your working clearly.

200 x 1.5 [1 mark]

300 [1 mark]

Work done = ……300…… 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.

45 / 10 [1 mark]

4.5 [1 mark]

4.5 x 2 [1 mark]

You get the full two marks if you just put the answer for 1 (b) and 1 (c) but you must show our working, in case you make a mistake. That way you might still get marks even if you have an incorrect answer.

Power = …9…… watts

(3 marks)

(Total 6 marks)