

SECTION B

Answer ALL questions in the spaces provided.

- 11 A toy car is released from rest and rolls down a slope, as shown.



mass of car = 0.160 kg

speed of car at bottom of slope = 2.6 m s^{-1}

- (a) Calculate the increase in kinetic energy of the car as it accelerates down the slope.

(2)

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Increase in kinetic energy =

- (b) As the car accelerates down the slope, the work done against frictional forces is 0.26 J .

Calculate the vertical displacement of the car.

(2)

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Vertical displacement of car =

(Total for Question 11 = 4 marks)

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