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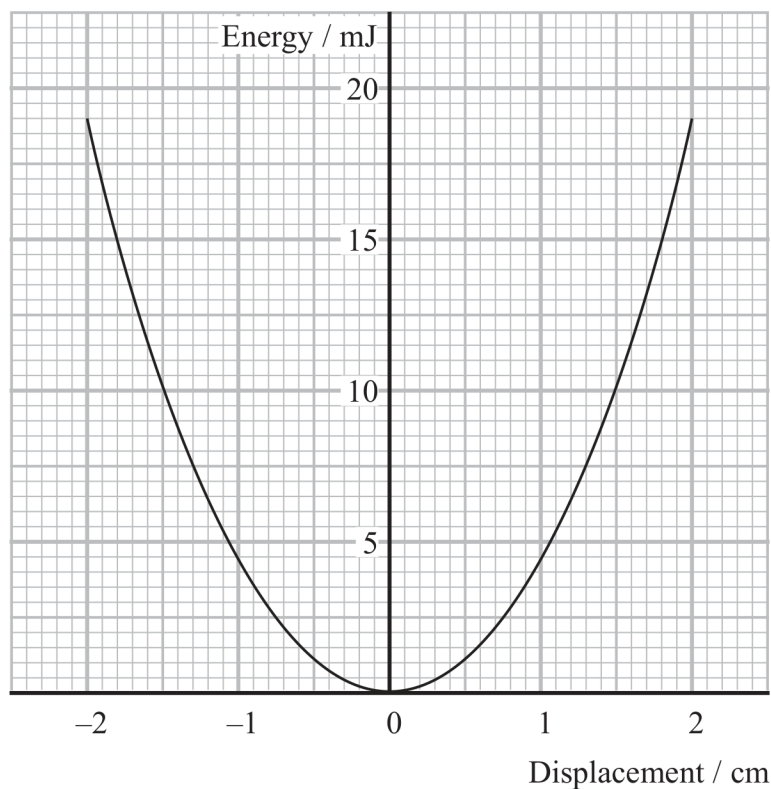
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14 A 150 g mass is hung from a vertical spring.

The mass is displaced from its equilibrium position and oscillates vertically with simple harmonic motion.

The graph shows how the elastic potential energy varies with displacement of the mass from the equilibrium position.



(a) Add a line to the graph to show how the total energy of the mass-spring system varies with displacement.

(1)

(b) Determine the speed of the mass when its displacement from the equilibrium position is 1.0 cm.

(4)

Speed of mass =

(Total for Question 14 = 5 marks)