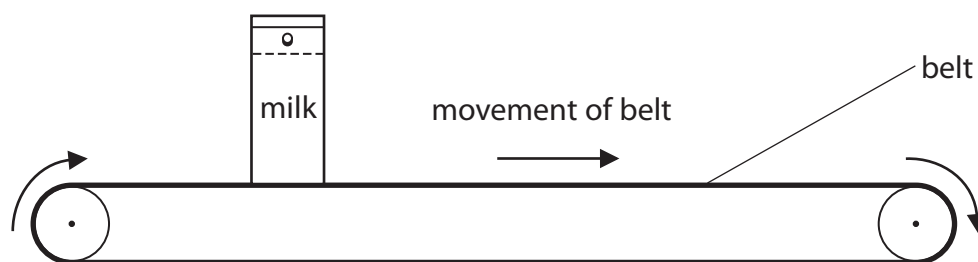


7 Supermarkets use conveyer belts to move shopping at the till.

The diagram shows a carton of milk being pulled along by a horizontal conveyer belt.



The horizontal force on the carton from the belt is 1.7 N.

The carton moves a distance of 0.46 m.

(a) (i) State the equation linking work done, force and distance.

(1)

(ii) Calculate the work done moving the carton.

(2)

Work done = J

(iii) State how much energy is transferred to the carton.

(1)

Energy transferred = J



(b) The belt stops suddenly and the carton falls over.



(i) How does this affect the kinetic energy of the carton?

(1)

(ii) Why does falling over reduce the gravitational potential energy of the carton?

(1)

(Total for Question 7 = 6 marks)

