

Science

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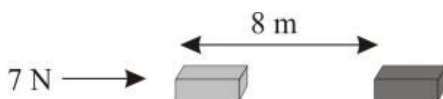
(Chapter – 11) (Work And Energy)

(Class – IX)

Page 148

Question 1:

A force of 7 N acts on an object. The displacement is, say 8 m, in the direction of the force. Let us take it that the force acts on the object through the displacement. What is the work done in this case?



Answer 1:

When a force F acts on an object to displace it through a distance S in its direction, then the work done W on the body by the force is given by:

Work done = Force \times Displacement

$$W = F \times S$$

Where,

$$F = 7 \text{ N}$$

$$S = 8 \text{ m}$$

Therefore, work done, $W = 7 \times 8$

$$= 56 \text{ Nm}$$

$$= 56 \text{ J}$$