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Motion & Force.

4.8. A rectangular metal block of mass 4kg rests on the top of a metal surface. The co-efficient of friction between the box and the metal surface is 0.2. What force parallel to the surface is needed to move the block.

DATA:-

$$\text{Mass} = 4\text{kg}$$

$$\mu = 0.2$$

$$\text{Force} = ?$$

$$\text{Gravity} = g = 10\text{ms}^{-2}$$

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SOLUTION:-

$$F = \mu R$$

$$F = \mu mg$$

$$F = (0.2)(4)(10)$$

$$F = 8\text{N}$$