

5.29 Block A of weight 100 N rests on a frictionless inclined plane of slope angle 30° (Fig. 5.7). A flexible cord attached to A passes over a frictionless pulley and is connected to block B of weight W. Find the weight W for which the system is in equilibrium.

5.30 A block of mass M is held against a rough vertical wall by pressing it with a finger. If the coefficient of friction between the block and the wall is μ and the acceleration due to gravity is g calculate the minimum force required to be applied by the finger to hold the block against the wall ?

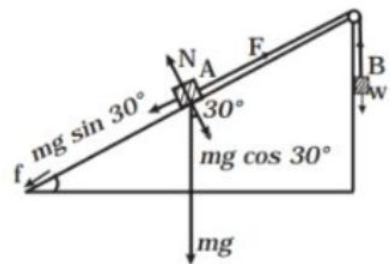


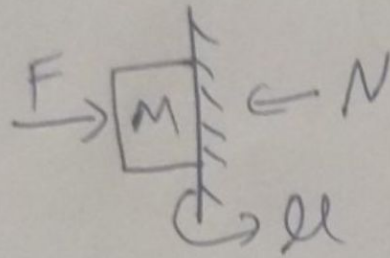
Fig. 5.7

\Rightarrow

$$W = mg \sin 30^\circ$$

$$W = 100 \times \frac{1}{2} = 50 \text{ N}$$

\Rightarrow



$$\boxed{N = F}$$

$$l F = Mg$$

$$F = \frac{Mg}{l}$$