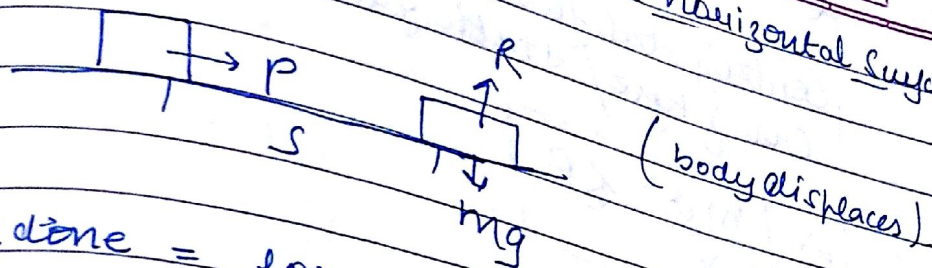


Work done when a body slide over a horizontal surface!



$$\Rightarrow \text{Work done} = \text{force} \times \text{displacement} \quad [P = F]$$

$$= P \times s$$

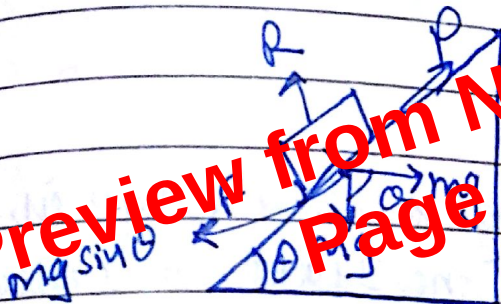
$$= F \times s$$

$$= UR \times s$$

$$= Umg \times s$$

$$\left(\begin{array}{l} u = \frac{F}{R} \text{ , } F = \mu R \\ \text{but } R \text{ is } = mg \end{array} \right)$$

Work done when a body moves up an inclined plane!



$$\Rightarrow \text{Work done} \Rightarrow \text{force} \times \text{displacement}$$

$$P = F + mg \sin \theta$$

$$W = (F + mg \sin \theta) \times s$$

$$W = (UR + mg \sin \theta) s$$

$$W = (Umg \cos \theta + mg \sin \theta) s$$

$$W = mg (\mu \cos \theta + \sin \theta) s$$