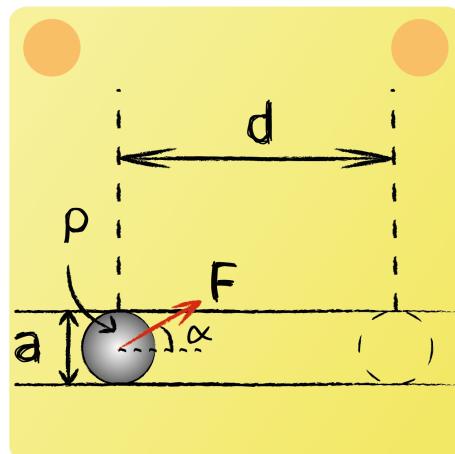


Lecture 01 - Energy 01

A sphere is being moved by a force F over a distance d . Give an expression for the work that has to be delivered in order to move the object. The angle $\alpha = 30^\circ$



Force in x-direction:

$$F_x = F \cdot \cos(30^\circ) = \frac{1}{2}\sqrt{3}F$$

Work:

$$W = F_x \cdot d = \frac{1}{2}\sqrt{3}F \cdot d$$