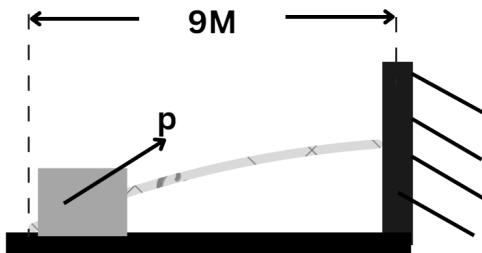


5.3.1a Block on a bar



Question

A curved bar is encircled by a block. If there is a force P acting on the block on an angle, θ , until it reaches the maximum height of the bar, choose the correct expression for the work exerted on the block.

Using known expressions:

$$U = \int_{initial}^{final} F dr$$

Given:

$$F = p$$

Solution:

by dividing the distance into horizontal and vertical, $\int_0^{height} p \times \sin\theta dy + \int_0^{horizontal\ distance} p \times \cos\theta dx$