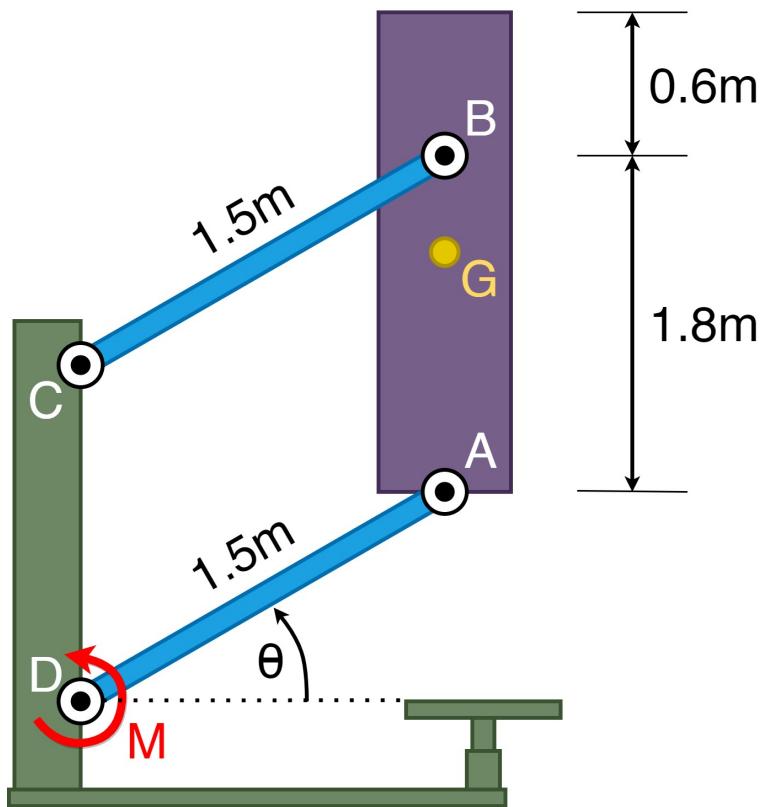
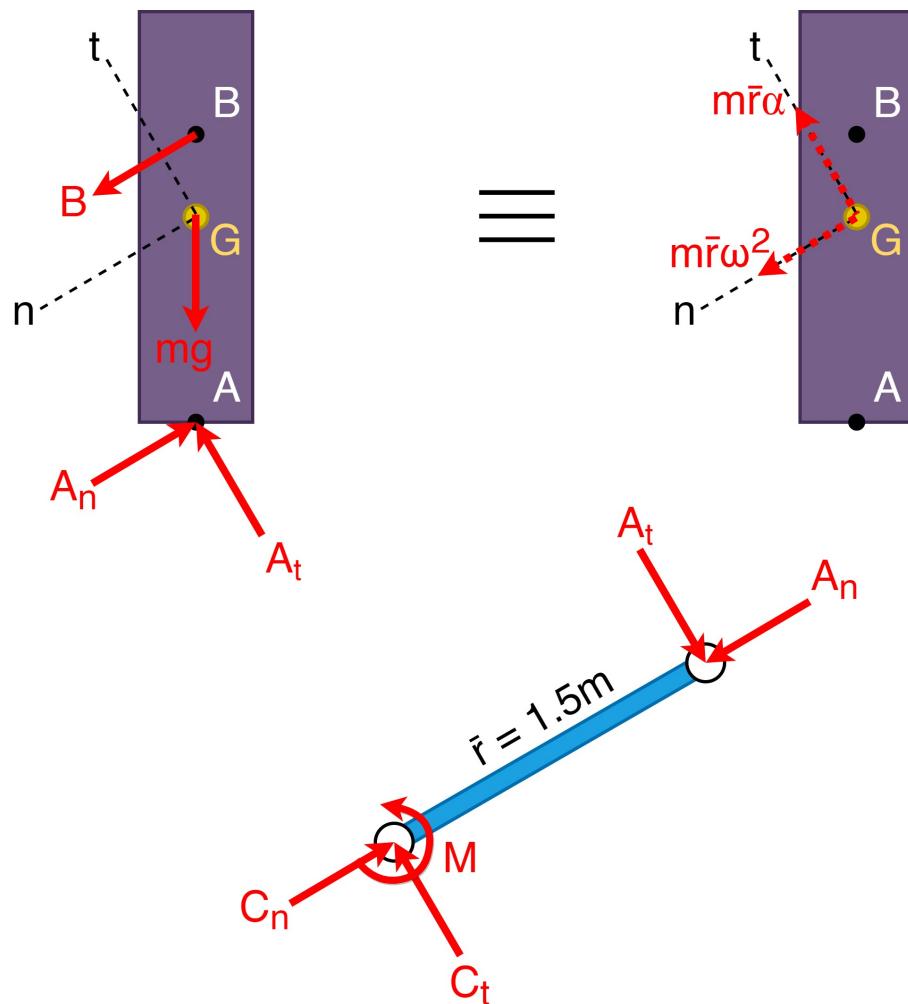


Reference axes



The vertical bar AB has a mass of 150 kg with the centre of mass G midway between the ends. The bar is elevated from rest at $\theta = 0$ by means of the parallel links of negligible mass, with a constant moment M applied to the lower link at C.
 Suppose we want to find the force B in the link DB at specific values of θ .
 How should we orient the reference axes in the FBD and kinetic diagram to keep the solution as short and simple as possible?



Generally speaking, the best choice of reference axes is to make them coincide with the directions in which the components of the mass-centre acceleration are expressed.