

7C Limiting Friction

1. A block of mass 3kg rests on a rough horizontal plane. The coefficient of friction between the block and the plane is 0.4. When a horizontal force P N is applied to the block, the block remains in equilibrium.
 - a) Find the value for P for which the equilibrium is limiting

- b) Find the value of F when $P = 8\text{N}$

2. A mass of 8kg rests on a rough horizontal plane. The mass may be modelled as a particle, and the coefficient of friction between the mass and the plane is 0.5.

Find the magnitude of the maximum force P , which acts on this mass without causing it to move if P acts at an angle of 60° above the horizontal.