1. **Static Rigid Bodies**

Recall from the chapter on moments that for a stationary rigid body:

* The **resultant force is 0**.
* The **resultant moment is 0**.

The problems are the same as in the moments chapter, except now we may need to consider frictional forces.

**Example**

A uniform rod $AB$ of mass 45kg and length 12m rests with the end $A$ on rough horizontal ground. The rod rests against a smooth peg $C$ where $AC=8$ m. The rod is in limiting equilibrium at an angle of $15°$ to the horizontal. Find:

1. the magnitude of the reaction of $C$
2. the coefficient of friction between the rod and the ground.

**Example** *(EdExcel M2 Jan 2012 Q5)*



**Test Your Understanding** *(EdExcel M2 Jan 2013 Q3)*





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