

Questions on Moments for AQA GCSE Physics

1. A pupil pushes a classroom door with a force of 25 N. Their hand is 0.80 m from the hinge. Calculate the moment.
2. A child sits on a seesaw 1.2 m from the pivot. Their weight is 300 N. Calculate the moment they produce.
3. A mechanic pushes on the end of a spanner with a force of 45 N. The spanner is 0.30 m long. Calculate the moment on the bolt.
4. A cyclist pushes down on a pedal with a force of 180 N. The pedal is 0.17 m from the centre of the crank. Calculate the moment.
5. A person pushes a garden gate with a force of 60 N. They push 1.4 m from the hinge. Calculate the moment.
6. A crowbar is used to lift a heavy paving slab. A force of 90 N is applied 0.70 m from the pivot. Calculate the moment.
7. A heavy door needs a moment of 96 Nm to open. A pupil pushes 1.2 m from the hinge. Calculate the force needed.
8. A spanner must produce a moment of 18 Nm to loosen a bolt. The spanner is 0.25 m long. Calculate the force needed.
9. A seesaw produces a moment of 750 Nm. The child's weight is 300 N. Calculate the child's distance from the pivot.
10. A wheelbarrow handle needs a moment of 84 Nm to lift the load. The person pushes down with a force of 140 N. Calculate the distance from the wheel axle.