



Material:

Item-no.	Qty.	Description
DS101-1G	1	Support base, large, L=500 mm
DS093-04	1	Sliding saddle "Sepp", H=40 mm
DS300-75	1	Support rod, squared, L=750 mm, 12x12 mm
DS400-3K	1	Bosshead cross-pattern, Demo, green
DS204-2L	1	Bearing pin with clamp insert
DM620-1S	1	Plate for testing centre of gravity
DM600-1L	1	Plumb line
	1	Pencil

Purpose

To determine the centre of gravity of a plate

Preparation

Place the sliding saddle in the centre of the large support base and insert the 750 mm support rod into the sliding saddle; afterwards mount a bosshead on top of the support rod as shown on the image.

Remove the bearing pin from the clamp insert and put the bearing pin through the hole of the plate. Now put the bearing pin back into the clamp insert and mount the clamp insert at the bosshead. Afterwards fix the plumb line on the bearing pin.

Experiment

The plate is suspended from various holes and the associated centre of gravity drawn with a wipe-able pen. The centre of gravity (= the centre of mass of the plate) then lies at the intersection.

Each mass point of the plate exerts a torque on the body (which can be rotated around the centre of gravity axis); the sum of all torques however is zero.

The body is in static balance in every position. The total weight acting in the centre of gravity is the sum of all partial weights and the body can be treated like a mass point.