

MEASURING VOLUME OF SOLID BODIES - OVERFLOW BEAKER

MED 01.04a



Material:

Item-no.	Qty.	Description
C1580-1B	1	Measuring cylinder glass, 100 ml
DM110-1A	1	Overflow beaker 600 ml
C7235-2B	1	Lab-jack small, 150x150 mm
DG200-1S	1	Cord, white, D=1.7 mm, L=5 m
	1	Weight from a mass set (500 g) (or other irregular solid bodies)

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Purpose

Determination of the volume solid bodies (especially irregular bodies) by liquid displacement.

Preparation

Prepare the experiment according to the image.

Adjust the height of the overflow beaker (through the lab-jack) to ensure that the end of drain pipe is positioned about 0.5 cm above the measuring cylinder. Make sure that the drain pipe is place centrally above the measuring cylinder.

Make sure that the volume of the solid bodies used in this experiment is not larger than the volume of the measuring cylinder.

Experiment

Pour water into the overflow beaker so that 2 to 10 ml of water flows over to measuring cylinder. Now empty the measuring cylinder.

Tie a cord (approx. 50 cm) around the body that is to be measured; afterwards let the body fully immerse in the water of the overflow beaker. The displaced water flows over to the measuring cylinder and the volume can be read off from the graduation of the cylinder.

The volume of the water that has flown to the cylinder is equal to the volume of the solid body.

Note

The problem of measurement errors could be pointed out during these measurements.