7 The absorption of light as it passes through a transparent material increases as the thickness of the material increases. The intensity I of the light passing out of the material depends on the thickness t of the material.

You are provided with a meter to measure the intensity of light and a number of microscope slides to act as absorbers of light. You may also use any of the other equipment usually found in a Physics laboratory.

Design an experiment to determine the relationship between I and t.

You should draw a labelled diagram to show the arrangement of your apparatus. In your account you should pay particular attention to

(a) the identification and control of variables,
(b) the equipment you would use,
(c) the procedure to be followed,
(d) how the relationship between I and t is determined from your readings,
(e) any precautions that would be taken to improve the accuracy and safety of the experiment.

Diagram