TASK A2

Candidates will take measurements on the path of a light ray through a transparent rectangular block.

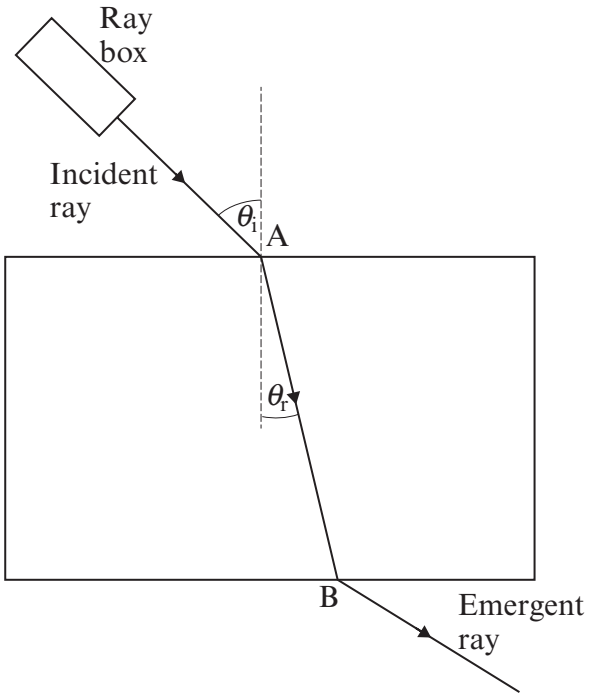
Test 1

Apparatus required:

Suitable white light source e.g. ray box fitted and slit to produce a narrow parallel beam of light
Power supply for ray box and connecting leads
Rectangular block of glass or Perspex: it is an advantage to candidates if the base of the block is frosted or painted matt white, so that the path of the light within the block is visible; candidates who are familiar with using glass blocks with polished bases should not require this.
1 or 2 sheets of plain paper, e.g. A3 or A4 copier paper, marked with angles of incidence of 30°, 40° and 50° [see below]
Protractor
30 cm rulers
Sharp pencil

The experiment may be conducted under normal laboratory lighting. A dark room is not required.

Diagram of experimental arrangement:



The angles of incidence of 30°, 40° and 50° should be indicated on the paper for the candidates. A clean copy should be made available at the changeover for each candidate.