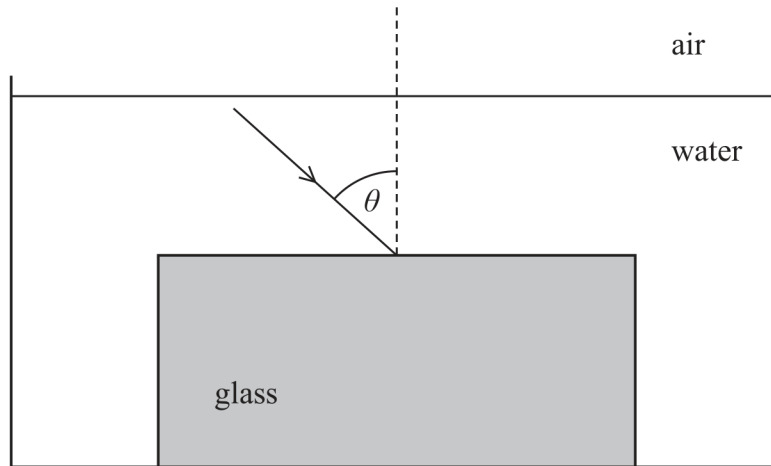


SECTION B

Answer ALL questions.

- 11 A block of glass is submerged in a container of water. A ray of light travelling in the water is directed towards the glass surface as shown.



refractive index of water = 1.33

refractive index of glass = 1.52

- (a) Calculate the angle of refraction within the glass block when $\theta = 43.0^\circ$.

(2)

Angle of refraction =

- (b) Determine the critical angle for light at a glass-water boundary.

(2)

Critical angle =

(Total for Question 11 = 4 marks)

DO NOT WRITE IN THIS AREA

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