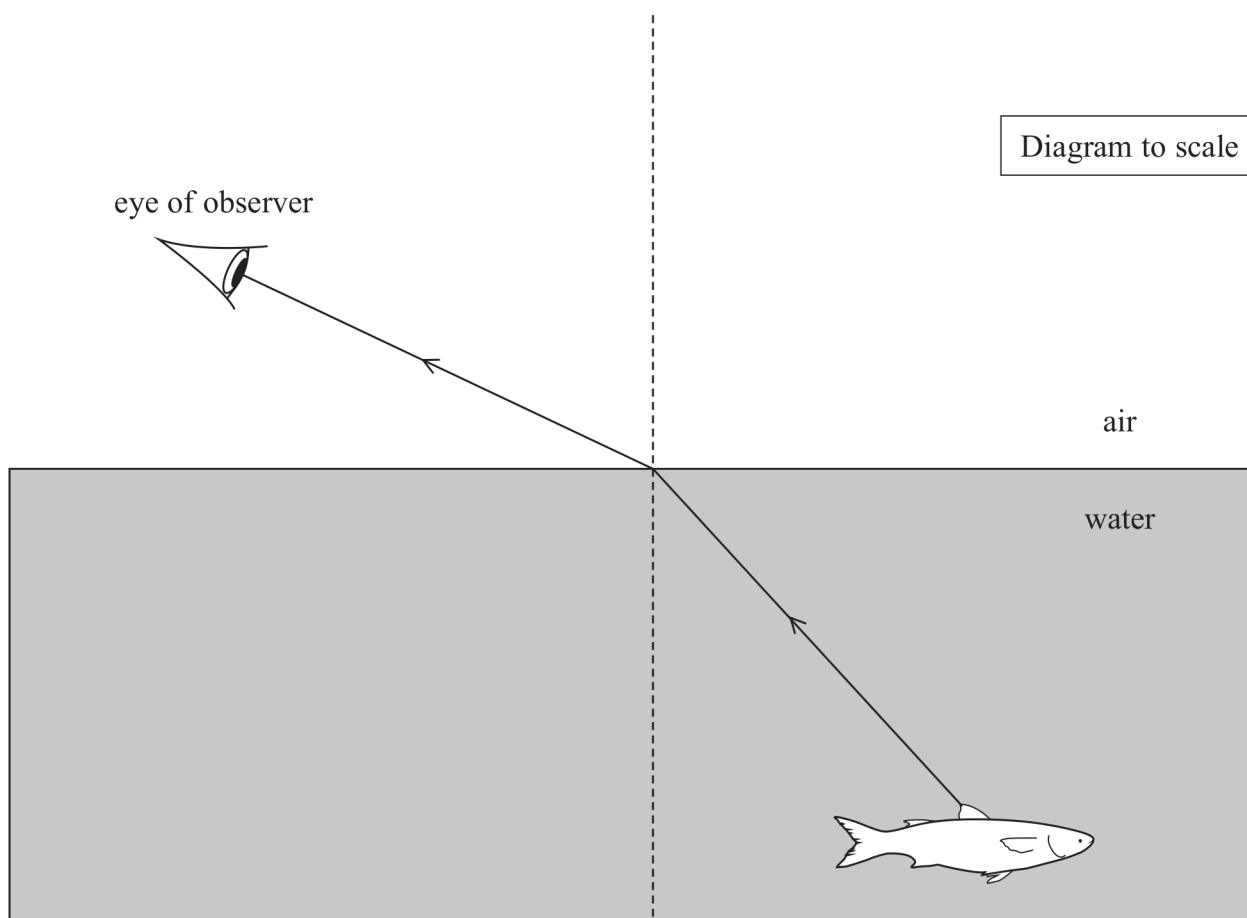


- 13 The diagram shows a ray of light travelling from a fish to an observer. The ray of light refracts at the water-air boundary.



- (a) Determine the refractive index of the water.

You should take measurements from the diagram.

(3)

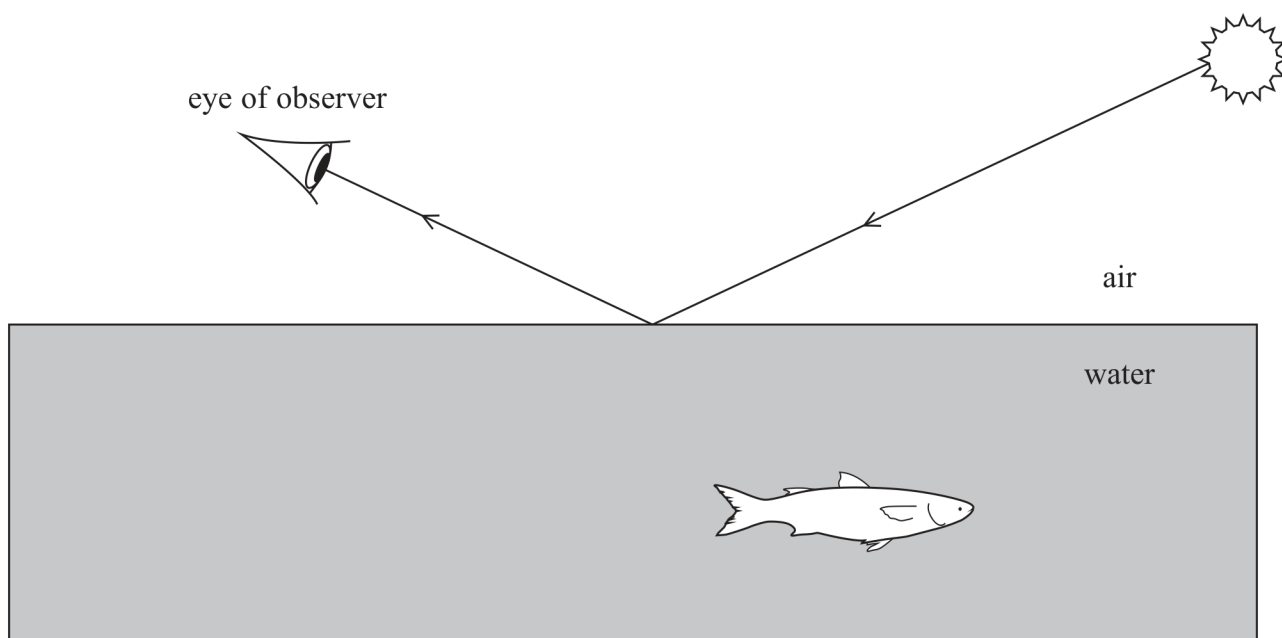
Refractive index = .....

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- (b) The diagram shows light from the Sun reflecting from the water surface into the eye of the observer.



The reflected light is partially plane polarised.

- (i) Explain the difference between unpolarised and plane polarised light.

(3)

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- (ii) Reducing the intensity of the reflected light would help the observer see the fish.

Explain how the observer can use a polarising filter to reduce the intensity of the reflected light.

(2)

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