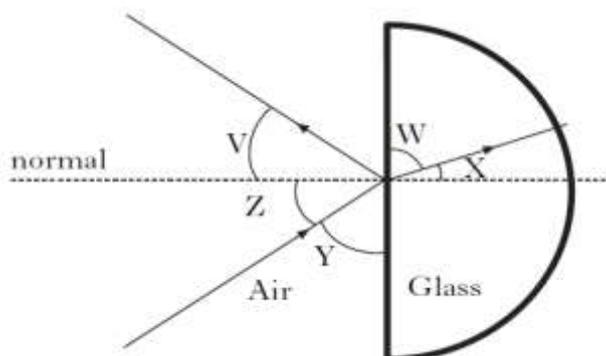


## Refraction - Homework

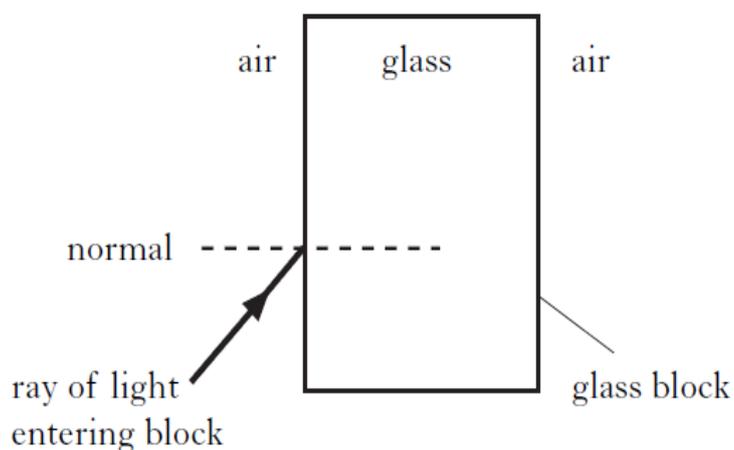
1. The diagram shows what happens to a ray of light when it strikes a glass block.



Which row in the table identifies the angle of incidence and the angle of refraction? (1)

	Angle of incidence	Angle of refraction
A	V	W
B	Y	W
C	Y	X
D	Z	W
E	Z	X

2. The following diagram shows a ray of light entering a glass block. Complete the diagram to show the path of the ray of light through the block and after it emerges from the block. Label the angle of refraction,  $r$ . (2)



3. A short-sighted person has difficulty seeing the picture on a cinema screen clearly. Figure 1 shows rays of light from the screen entering an eye of the person until the rays reach the retina.

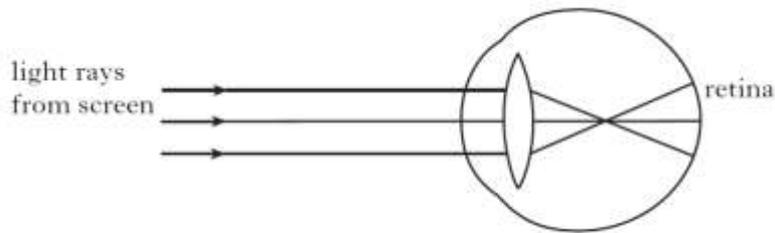
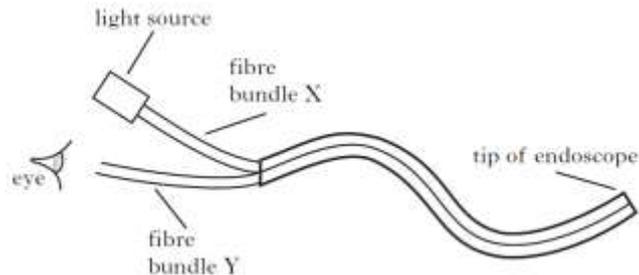


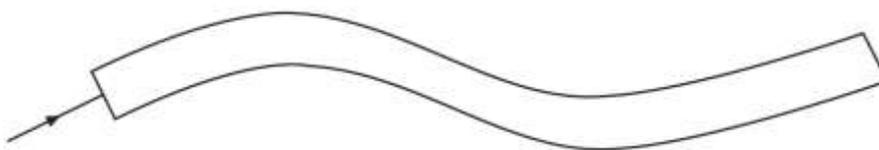
Figure 1

- Draw the shape of lens that would correct this eye defect. (1)
- Re-draw the diagram showing the path of the rays of light from this lens until they reach the retina. (2)

4. Doctors can use an endoscope to examine internal organs of a patient. The endoscope has two separate bundles of optical fibres that are flexible.



A section of optical fibre used in the endoscope is shown below.



- Copy and complete the diagram to show how light is transmitted along the optical fibre. (2)
- Explain the purpose of each bundle of optical fibres in the endoscope. (2)
- The tip of the endoscope that is inside the patient is designed to be very flexible. Suggest **one** reason for this. (1)