

**GCSE Biology A (Gateway)**

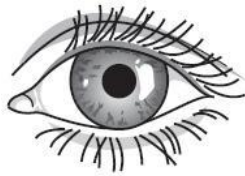
**J247/01 B1-B3 and B7 Foundation (Foundation Tier)**

**Question Set 17**

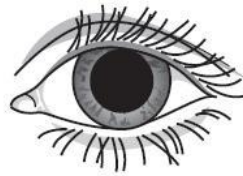
1

A girl walks from a sunny beach into a dark café.

Diagram **A** shows the girl's left eye on the beach.



**A**



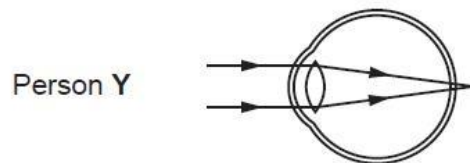
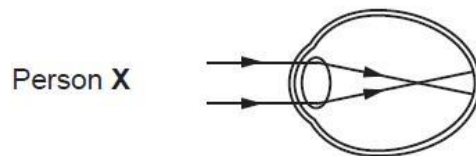
**B**

- (a) Diagram **B** shows the girl's left eye after she enters the café.  
Explain how you can tell this and how this change happens.

In diagram B the pupil has dilated because the radial muscles have contracted to allow more light into the eye.

[3]

- (b) Look at the diagrams.  
They show how light is focused in people with different eye defects.



- (i) Name the eye defect in each person.

[2]

Person X..... Short sighted .....

Person Y..... Long sighted .....

[3]

- (ii) Identify the type of corrective lens needed by person **X** and **Y** and explain how the lenses work.

Person X needs concave/divergent lens so that the light rays diverge before entering the eye.

Person Y needs convex/convergent lens so that the light converges before entering the eye.

**Total Marks for Question Set 17: 8**

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