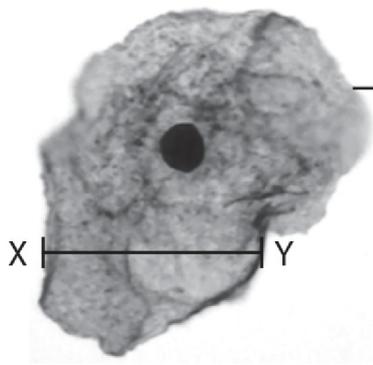


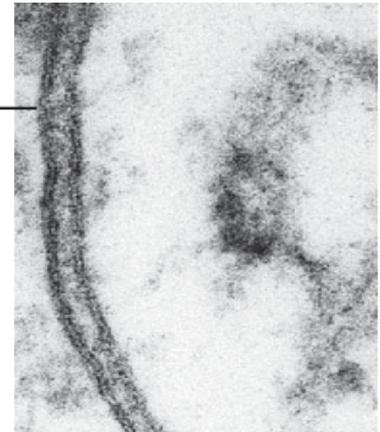
- (b) The photographs show a cell as seen using a light microscope and part of two cells using an electron microscope.

The bilayer structure of the cell surface membrane can be seen only with an electron microscope.



(Source: © Komsan Loonprom/Shutterstock)

Cell seen using a light microscope



(Source: © Dennis Kunkel Microscopy /Science Photo Library)

Part of cells seen using an electron microscope

- (i) Explain why the bilayer structure of the cell surface membrane could not be seen using a light microscope.

(2)

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- (ii) The light microscope magnified the cell 200 times.  
Calculate the actual width of this cell by measuring the line XY.

Give your answer in  $\mu\text{m}$ .

(3)

Answer .....  $\mu\text{m}$