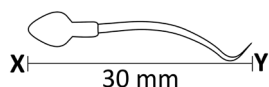


Name:

Class:



The diagram shows a drawing of a human sperm cell.

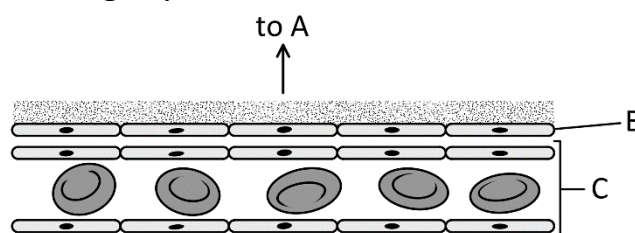


The distance between points XY is 30 mm.
The actual length of XY is 40 µm.
What is the magnification of the cell?

$$\text{Magnification} = 30\,000 \div 40$$

$$\text{Magnification} = \times 750$$

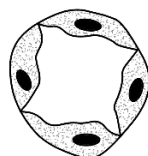
The diagram shows part of the human gas exchange system.



State how carbon dioxide crosses to A.

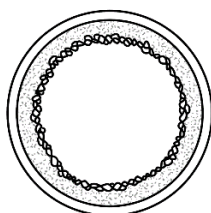
Diffusion

The diagram shows sections through three types of blood vessel, not drawn to the same scale. Identify V, W and X.



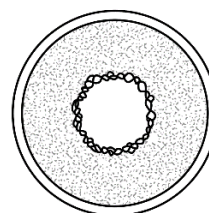
A

A = **capillary**



B

B = **vein**



C

C = **artery**

Plants growing in swamps have special roots that grow upwards through waterlogged soil to get oxygen from air. What type of response do these roots show?



A Negative gravitropism

B Positive germination

C Positive gravitropism

Describe **two** ways that white blood cells protect the body from disease.

A description including **two** from:

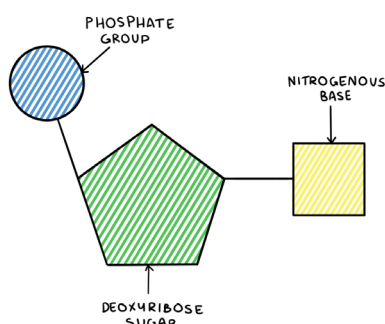
- Make antibodies.
- Engulfs or digests pathogens/ bacteria / viruses.
- Recognises pathogens / bacteria / viruses

Describe a test to show that a sample of food contains lipid.

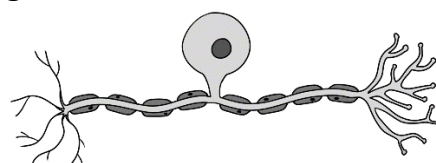
Test: add some ethanol solution to the sample and shake the mixture.

Result: if lipid is present a white emulsion will be seen.

In the space below draw a labelled diagram of a DNA nucleotide.



The diagram shows a neurone.



What type of neurone is shown?

A sensory neurone