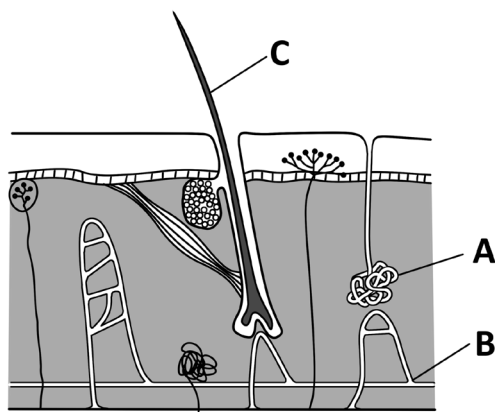


Name: .....

Class: .....



The diagram shows a section through the skin.



Name the structures labelled A, B and C.

A = **sweat glands / sweat duct.**

B = **capillary / shunt vessel / blood vessel.**

C = **hair / follicle.**

Name the hormone that converts glycogen into glucose.

**Glucagon**

Where is this hormone produced?

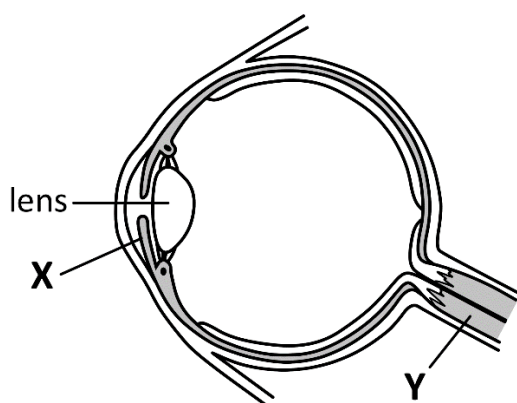
**Alpha cells of the pancreas/ pancreas**

How does vasoconstriction decrease the heat loss from the skin?

**Vasoconstriction is the narrowing (constriction) of blood vessels that supply the skin surface capillaries.**

**This reduces the volume of blood flowing near the surface, so less heat is lost to the environment via radiation.**

The diagram shows a section of an eye.



Label the structures x and y.

X = **Iris.**

Y = **Optic nerve.**

Explain how part X prevents damage to the retina in very bright light.

**The circular muscles of the iris contract, which causes the pupil to constrict (become smaller). This allows less light to enter the eye and reach the retina.**

What is the function of structure Y?

**It carries nerve impulses from the retina to the brain.**

The population of the USA is 322 million, of which 47.0% are over 40 years of age.

17.2% of the people over the age of 40 develop a cataract.

Calculate the number of people in the USA over the age of 40 who develop a cataract.

Number of people = **26 million**