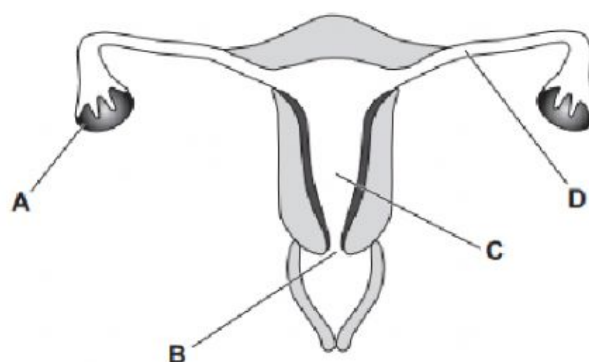


- 4 The diagram below shows the female reproductive system.



Source: Principal Examiner

- (a) Complete the table below using letters (A, B, C or D) to identify the parts whose function is described.

Function	Part
fertilisation takes place here	
produces eggs	

[2]

(b) A sperm is the male sex cell.

(i) Complete the flow chart below to name the parts of the male reproductive system that the sperm passes through.

Sperm are produced in the \_\_\_\_\_



Sperm then travel along the \_\_\_\_\_



Fluid is added by the prostate gland



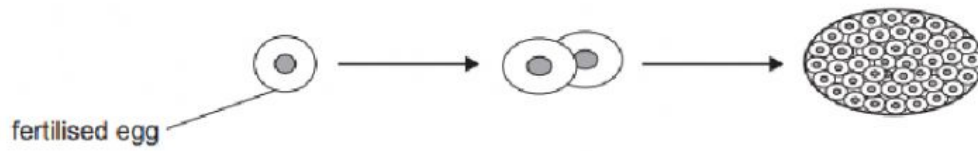
Sperm leaves the body through the \_\_\_\_\_ in the penis

[3]

(ii) State the function of the fluid added by the prostate gland.

\_\_\_\_\_ [1]

- (c) Fertilisation takes place when the sperm meets the egg. Some of the stages that a fertilised egg goes through as it travels to the uterus are shown below.



Source: Principal Examiner

- (i) What name is given to the fertilised egg?

Circle your answer.

zygote

embryo

foetus

[1]

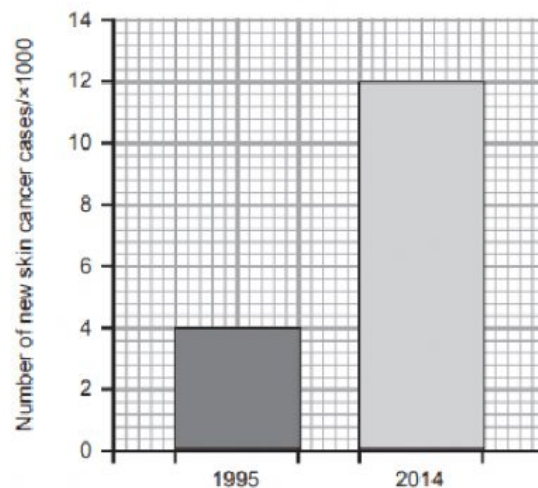
- (ii) Describe what happens to the fertilised egg as it travels to the uterus.

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[1]

- (b) The graph below shows the number of new cases of skin cancer in 1995 and 2014.



- (i) Name the environmental factor that causes skin cancer.

\_\_\_\_\_ [1]

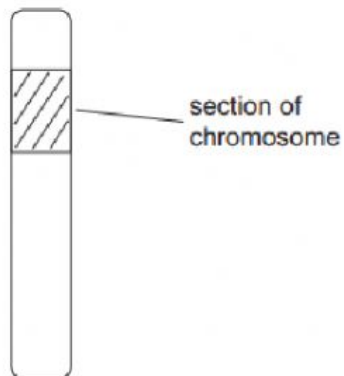
- (ii) Calculate the percentage increase in new cases between the two years.  
(Show your working out.)

\_\_\_\_\_ % [2]

- (iii) Suggest **one** reason why the number of skin cancer cases is increasing.

\_\_\_\_\_  
\_\_\_\_\_ [1]

- 2 The diagram below shows a chromosome found in the nucleus of a cell.



- (a) Complete the sentence below.

Choose from:

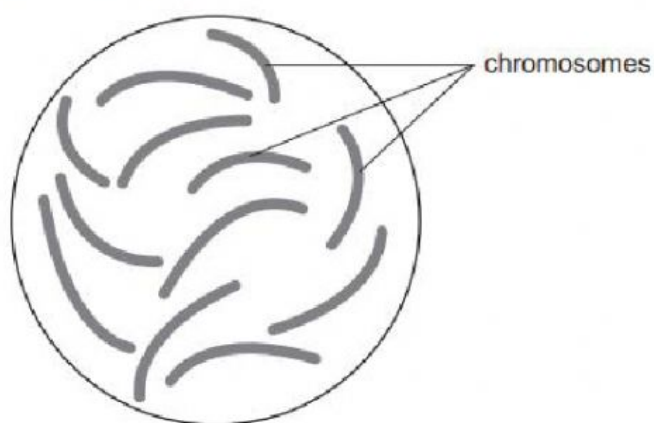
**a gene        :        DNA        :        a genome**

A section of chromosome is called \_\_\_\_\_ [1]

- (b) The table below shows the number of chromosomes in the cell nuclei of five different organisms.

Organism	Number of chromosomes
barley	14
pineapple	50
broad bean	12
human	46
hermit crab	254

The diagram below shows the number of chromosomes in a nucleus of a cell from one of these organisms.



- (i) Which organism named in the table does this cell nucleus come from?

\_\_\_\_\_ [1]

- (ii) A student thought that the more advanced an organism is the more chromosomes it will have. What evidence in the table shows this is **incorrect**?

\_\_\_\_\_  
\_\_\_\_\_ [1]

- 3 The table below shows the height of some 15 year old students.

Student	Gender	Height/cm
1	female	115
2	female	118
3	female	116
4	female	110
5	female	112
6	male	121
7	male	127
8	male	128
9	male	122
10	male	131
Total height		1200

- (a) Using this information give **one** conclusion about the height of 15 year old males compared to 15 year old females.

\_\_\_\_\_

\_\_\_\_\_ [1]

- (b) Calculate the average height of the students.  
(Show your working out.)

Answer \_\_\_\_\_ cm [2]

- (c) There are two types of variation. Name the type of variation shown by height.

\_\_\_\_\_ [1]