

(b) Crossing over between pairs of chromosomes increases genetic variation.

(i) Name the stage of meiosis in which crossing over begins.

(1)

(ii) How many of the following combinations could result from one crossover of the chromosomes shown in the diagram?

- AbE
- ABe
- abE
- abe

(1)

A one

B two

C three

D four

(iii) Explain why alleles b and e are more likely to be inherited together than alleles A and e.

(2)

(Total for Question 3 = 7 marks)