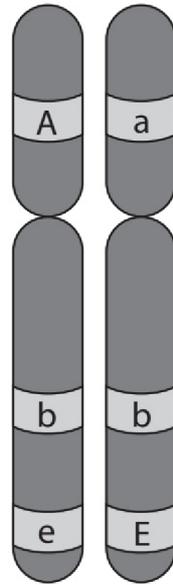


3 The nucleus of a cell contains chromosomes.

The diagram shows three genes present on a pair of chromosomes.



(a) (i) How many of the following statements about this diagram are correct?

- there are three gene loci
- the pair of chromosomes will be separated into different cells following mitosis
- one chromosome was inherited from the mother and one chromosome was inherited from the father

(1)

- A** none
- B** one
- C** two
- D** three

(ii) Describe what will happen to these chromosomes when they enter the interphase stage of the cell cycle.

(2)

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