

3 The binary number 10100011 is stored in random access memory (RAM).

A logical left shift of **three** places is performed on the binary number.

(a) Give the 8-bit binary number that will be stored after the shift has taken place.

..... [1]

(b) Tick (✓) **one** box to show which statement about a logical left shift of **two** places is correct.

A It would divide the binary number by 2.

B It would multiply the binary number by 2.

C It would divide the binary number by 4.

D It would multiply the binary number by 4.

[1]

(c) 10100011 can be stored as a two's complement integer.

Convert the two's complement integer 10100011 to denary. Show all your working.

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..... [2]

(d) The binary number is measured as a byte because it has 8 bits.

State how many bytes there are in a kibibyte (KiB).

..... [1]