

1 Numbers are stored in a computer using binary floating-point representation with:

- 10 bits for the mantissa
- 6 bits for the exponent
- two's complement form for both the mantissa and the exponent.

(a) Calculate the normalised binary floating-point representation of +201.125 in this system.

Show your working.

Mantissa

Exponent

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Working

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[3]

(b) Calculate the denary value of the given normalised binary floating-point number.

Show your working.

Mantissa

Exponent

1	0	1	0	1	1	0	0	1	1
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0	0	0	1	0	1
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Working

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Answer

[3]