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

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

(a) Give the largest normalised positive two's complement binary number that can be stored in this system **and** state its denary equivalent.

The denary answer should be expressed in terms of powers of 2.

Mantissa **Exponent**

Denary .....

[2]

(b) Calculate the normalised binary floating-point representation of –3.59375 in this system. Show your working.

Mantissa **Exponent**

Working .....

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[4]