

## Quiz 3

COMP9021 Principles of Programming

2013 session 1

### Sample outputs

\$ a.out

Enter the sign of a normalised floating point number not equal to 0: +

Enter the exponent: -126

Enter the decimal part: 0

The 32 bits of  $+2^{-126} \times 1.0000000$ , with bytes in their "natural" order, are:

00000000 10000000 00000000 00000000

\$ a.out

Enter the sign of a normalised floating point number not equal to 0: -

Enter the exponent: 127

Enter the decimal part: 0.99999999

The 32 bits of  $-2^{127} \times 1.99999999$ , with bytes in their "natural" order, are:

11111111 01111111 11111111 11111111

\$ a.out

Enter the sign of a normalised floating point number not equal to 0: -

Enter the exponent: -42

Enter the decimal part: 0.5

The 32 bits of  $-2^{-42} \times 1.5000000$ , with bytes in their "natural" order, are:

10101010 11000000 00000000 00000000

\$ a.out

Enter the sign of a normalised floating point number not equal to 0: +

Enter the exponent: -96

Enter the decimal part: 0.328125

The 32 bits of  $+2^{-96} \times 1.3281250$ , with bytes in their "natural" order, are:

00001111 10101010 00000000 00000000

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$ a.out
Enter the sign of a normalised floating point number not equal to 0: -
Enter the exponent: -26
Enter the decimal part: 0.59893798828125
The 32 bits of  $-2^{-26} \times 1.5989380$ , with bytes in their "natural" order, are:
    10110010 11001100 10101010 00000000
$ a.out
Enter the sign of a normalised floating point number not equal to 0: +
Enter the exponent: 122
Enter the decimal part: 0.006837964057922363281250
The 32 bits of  $+2^{122} \times 1.0068380$ , with bytes in their "natural" order, are:
    01111100 10000000 11100000 00010001
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