1. Complete the set of randomly-generated questions on [Binary Arithmetic and Radix Conversion](http://www.ict.griffith.edu.au/teaching/1007ICT/2009/cgis/combined_arith_convert.cgi).

The questions are available at:

<https://www.ict.griffith.edu.au/teaching/1007ICT/2009/cgis/combined_arith_convert.cgi>

Please take a screenshot (or use the Windows snipping tool) of your answers showing all the green ticks to show that all questions are completed and paste your screenshot here.

This question is worth 1.6 marks. A screenshot of a computer

Description automatically generated

1. Explain in your own words why you must specify the number of bits used in your input number when performing a two’s complement binary negation and what the error will be if you do not include leading zeros.

This question is worth 0.4 marks.

When completing any two’s complement binary negation you must specify the number of bits used. This is because if the leading zeros are not included in the calculation, the resultant two’s complement binary number will not be accurate. This is due to the complementary conversion will be missing values at the beginning of the binary number. For example, in an 8-bit negation, the number 1010 would have a two’s complement number of 0110 if it was done in 4 bit. But in 8 bit it would have been 00001010. This complement number would then be 11110110.