



4.5.2 Number Bases

- 1) Describe how a 12-bit unsigned binary integer such a 111010101011 can be converted directly into hexadecimal.

The method you describe must **not** involve converting into decimal.

[2 marks]

- Put the bits into groups of four
 - Convert each group of bits into a hexadecimal digit
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- 2) State **one** reason why hexadecimal is often used in preference to binary.

[1 mark]

- More compact when displayed
 - Easier for people to understand/remember
 - Lower likelihood of making an error when typing in data
 - Saves time when writing data
-

- 3) What is the hexadecimal equivalent of the bit pattern 00111001.

[1 mark]

- 39
-

- 4) What is the hexadecimal equivalent of the bit pattern 111101110001.

[2 marks]

- F71
-





5) What is the decimal equivalent of the binary number 11011001.

[1 mark]

- 217
-

6) Convert the decimal number 188 into unsigned binary format.

[1 mark]

- 10111100
-

7) Convert the decimal number 532 to a hexadecimal number.

[2 marks]

- 214
-

8) Convert the hexadecimal number FF3 into decimal.

[2 marks]

- 4083
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