# Unit 2.6 Data Representation
## Lesson 1 - Numbers

# MCQS

The numbers after the question are an approximate estimation of relative difficulty, broadly based around the new GCSE Numbering System. Please note that these were produced before final guidance was released regarding levels of difficulty and as such should be used as a rough guide only.

| Question 1: What numeric base does Binary operate on? (1-4) | ✓ |
|---|---|
| 2 | |
| 1 | |
| 8 | |
| 16 | |
| **Question 2: How many bits are there in a byte? (1-4)** | ✓ |
| 8 | |
| 16 | |
| 1 | |
| 2 | |
| **Question 3: What is the maximum number of bits needed to represent 15 in denary? (3-5)** | ✓ |
| 6 | |
| 4 | |
| **Question 4: What is the 8 bit binary representation of 17? (5-7)** | ✓ |
| 00010010 | |
| 00010001 | |
| 00001101 | |
| 00100010 | |
| **Question 5: What is the binary representation of 32? (5-7)** | ✓ |
| 00100000 | |
| 00100100 | |
| 00110000 | |
| 00100001 | |
| **Question 6: Question 6: What is the Denary representation of this 8 bit number? 01001111 (5-7)** | ✓ |
| 59 | |
| 79 | |
| 69 | |
| 49 | |
| **Question 7: Question 7: What is the Denary representation of this 8 bit number? 11010101 (5-7)** | ✓ |
| 199 | |
| 206 | |
| 228 | |
| 213 | |

# MCQS

| Question 8: How Bytes are there in a Terabyte? (5-7) | ✓ |
|---|---|
| 1024 Kilobytes | |
| 1024 Megabytes | |
| 1024 Gigabytes | |
| **Question 9: Why do we use the binary number system in Computing? (4-6)** | ✓ |
| Because a CPU has two transistors | |
| To represent the two different states of transistors | |
| To allow the CPU to be in one of two states | |
| **Question 10: What is the hex number 6B in binary? (6-8)** | ✓ |
| 01101011 | |
| 10101110 | |
| 01110111 | |

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# MCQS ANSWERS

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