

Hexadecimal numbers | Part C

But when is 85 not the same as 85?

Answer: when one of them is encoded in hex! Just like 10 centimetres is different to 10 metres.

In this example the first number 85 is encoded in hex but the second 85 is in denary!

To convert 85 in hex in to denary you must first convert it to 4 bit binary so for example 1000 0101 then in to 8 bit binary 10000101 then in to denary 133! So 85 in hex is 133 in denary!

And 133 is definitely not the same as 85!

So, how can you tell if a number is hex or denary?

Read the exam questions carefully! You'll be told which representation you're supposed to be using.