

Hexadecimal numbers | Part A

You have already seen how computers use binary to represent numbers and letters. This video will show you how computers can also use another system (based on binary) called Hexadecimal to represent numbers.

Hexadecimal or “hex” is a base 16 number system. This means that it represents everything using just 16 symbols, the numbers 0 to 9 and letters A to F. It’s often used when programming because hex is easier to remember than binary but faster to run than denary which is normal base 10.

Hex can be used to represent anything but you only need to know how it is used to represent numbers. You need to be able to convert from denary to hex and from hex back to denary!

Converting to hex is pretty simple! First take your decimal number and convert it into binary using the method you have already learnt. So the number 179 becomes 10110011. Then split that 8 bit binary into two four bit sections 1011 0011. Finally you convert each 4 bit section in to denary so 1011 becomes 11 and 0011 becomes 3. Now hex can only use 0 to 9 and A to F so 11 is changed for B. leaving the answer B3.