

KS3 Bitesize Computer Science

Converting denary to binary – video subtitles

This method of converting denary numbers to binary is to use binary place values.

The first thing to do is write the place values in their columns.

Then take your denary number, in this case, 84.

Find the largest place value number that fits into 84 – in this case 64 – then subtract.

Put a one below and take the remaining 20 to the next column.

32 doesn't fit into 20 so put a '0' in that column.

16 fits into 20 leaving 4, so there's another '1' and move again.

8 doesn't fit into 4, but 4 does, so put a '0' and a '1'.

You have nothing left so zeroes go beneath '2' and '1'.

And there's your binary number!