

# Number Bases - Summary

The idea of an **8-bit binary number** is really important in computing

This stems from the ways in which early(ish) computers often used 8-bits as their maximum storage or processing space

The largest 8-bit number is  $11111111 = 255$

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But binary is difficult for humans to use

The numbers end up being long - so it's easy to make a mistake writing them down

If only there were a system easier for humans to use but that directly related to 8-bit binary...

So we can use **hexadecimal**

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## Hexadecimal - Base 16:

16 numbers available to use - 0, 1, 2 ... 9, A, B, C, D, E, F

Total numbers possible with 1 digit = **16**

Highest number with 1 digit = **15 (F)**

**Range** of numbers possible with 1 digit: **0 to 15**