

of Bits is powers of 2 - not conversions

Possibilities	2	4	8	16	32
BITS	1	2	3	4	5

- If you have a 5X5 Grid

If I have 4 people for dinner how many bits would it take to represent them?

- 2 bits - Powers 2,4

What if 4 more show up - how many bits?

- Powers 2,4,8 - 3 bits

What is the minimum number of bits that you will need to encode a coordinate in that space?

15 X 8

4 bits for X and 3 for y

2,4,8,16 and 2,4,8

20 X 10

2,4,8,16,32 and 2,4,8,16

5 + 4 = 9

Why do computers use binary?

- Easier
- Cheaper
- More reliable

ASCII

- How many bits per character?
- Convert iPad to binary with an ASCII chart

Quizizz

- Binary Game