

Binary conversion

1. Write the **column headings** out from the right (start at 1 and double)

128s	64s	32s	16s	8s	4s	2s	1s
1	0	0	0	1	0	1	1

2. For every 1, write the **column header** number down: 128 8 2 1

3. **Add** those numbers up: $128 + 8 + 2 + 1 = 139$

Binary conversion

1. Start with the **column headers**
2. Work out what the **biggest number** you need is and add a 1 to that column: 144 needs a 128

128s	64s	32s	16s	8s	4s	2s	1s
1							

3. Work out **what's left**: $144 - 128 = 16$ needed
4. **Fill** in those columns with **1s** and **add 0s** in all other columns: $144 = 10010000$