

g) 365_8 to binary

3 6 5
↙ ↓ ↘
011 110 101

$$365_8 = 011110101_2$$

h) 5022_8 to decimal

1 to binary

5022
↙ ↓ ↘ ↘
101 000 010 010

2. to decimal

$$\begin{aligned} 101000010010 &= 0 \times 2^0 + 1 \times 2^1 + 0 \times 2^2 + 0 \times 2^3 \\ &\quad + 1 \times 2^4 + 0 \times 2^5 + 0 \times 2^6 + 0 \times 2^7 \\ &\quad + 0 \times 2^8 + 1 \times 2^9 + 0 \times 2^{10} + 1 \times 2^{11} \\ &= 2 + 16 + 512 + 2048 = 2578 \end{aligned}$$

$$\cancel{365_8} \quad 5022_8 = 2578_{10}$$

