$$2^n = 10^{18}$$

1 2 4 8 16 32

24

$$\log_2 2^n = \log_2 10^{18}$$

$$2^4 = 16 \qquad 2^5 = 32$$

$$32 - 24 = 8$$

$$24 - 16 = 8$$

$$n = 18 \times$$

1 2 4 8 16 32
-

MIN = 24

$$24 - 1 = 23 < 24$$

2 | 24
2 | 12
2 | 6
3 | 3
    | 1