

Tue Sep 20 2018

alphabet = "0123456789ABCDEF"

c = str[i].to_upper()

j = alphabet.find(c)

BASE 16

$$12 \times = 1 \cdot 16 + 2 = 18 \text{d}$$

$$3C \times = 3 \cdot 16 + C = 48 + 12 = 60 \text{d}$$

$$111 \times = 1 \cdot 16^2 + 1 \cdot 16 + 1 =$$

$$27 \times = 2 \cdot 16 + 7 = 39 \text{d}$$

$$= 256 + 16 + 1 = 273 \text{d}$$

Reminder of Decimal System

$$239 = 2 \cdot 100 + 3 \cdot 10 + 9$$
$$= 2 \cdot 10^2 + 3 \cdot 10 + 9$$

$$3472 = 3 \cdot 10^3 + 4 \cdot 10^2 + 7 \cdot 10 + 2$$

Base 10

$$3145_{16} = 3 \cdot 16^3 + 1 \cdot 16^2 + 4 \cdot 16 + 5$$

3A