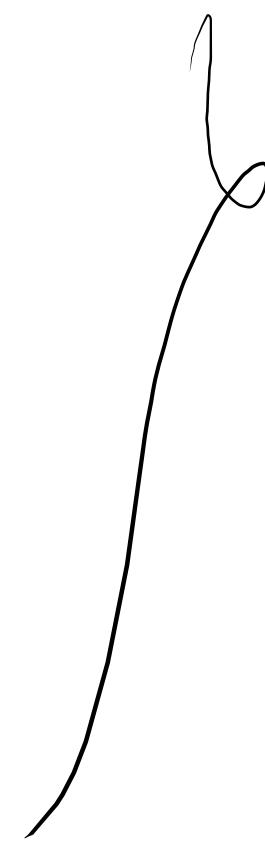


- ① Arithmetic
- ② comparison
- ③ Logical
- ④ Assignment
- ⑤ Bitwise
- ⑥ Membership
- ⑦ Identity operator



AND

$$\overline{T} \quad \overline{T} \rightarrow T$$

$$T \quad F \rightarrow F$$

$$F \quad T \rightarrow F$$

$$F \quad F \rightarrow F$$

OR

$$T \quad T \rightarrow T$$

$$T \quad F \rightarrow T$$

$$F \quad T \rightarrow T$$

$$F \quad \underline{F} \rightarrow F$$

Q7 → Binary no'

16 8 4 2 1
| | 0 | |

↑
11011
=

$$1 \times 2^0 + 1 \times 2^1 + 0 \times 2^2 + 1 \times 2^3 + 1 \times 2^4$$

$$= 1 + 2 + 0 + 8 + 16$$
$$= \underline{27}$$

52

52
22
1100

32 16 8 4 2 1
| | 0 | 0 0

110100
=

$$0 \times 2^0 + 0 \times 2^1 + 1 \times 2^2 + 0 \times 2^3 + 1 \times 2^4 + 1 \times 2^5$$

$$= 0 + 0 + 0 + 16 + 32$$

$$= \underline{52}$$

Binary No's

1.25 ↗

1 → |

1.01 ↙

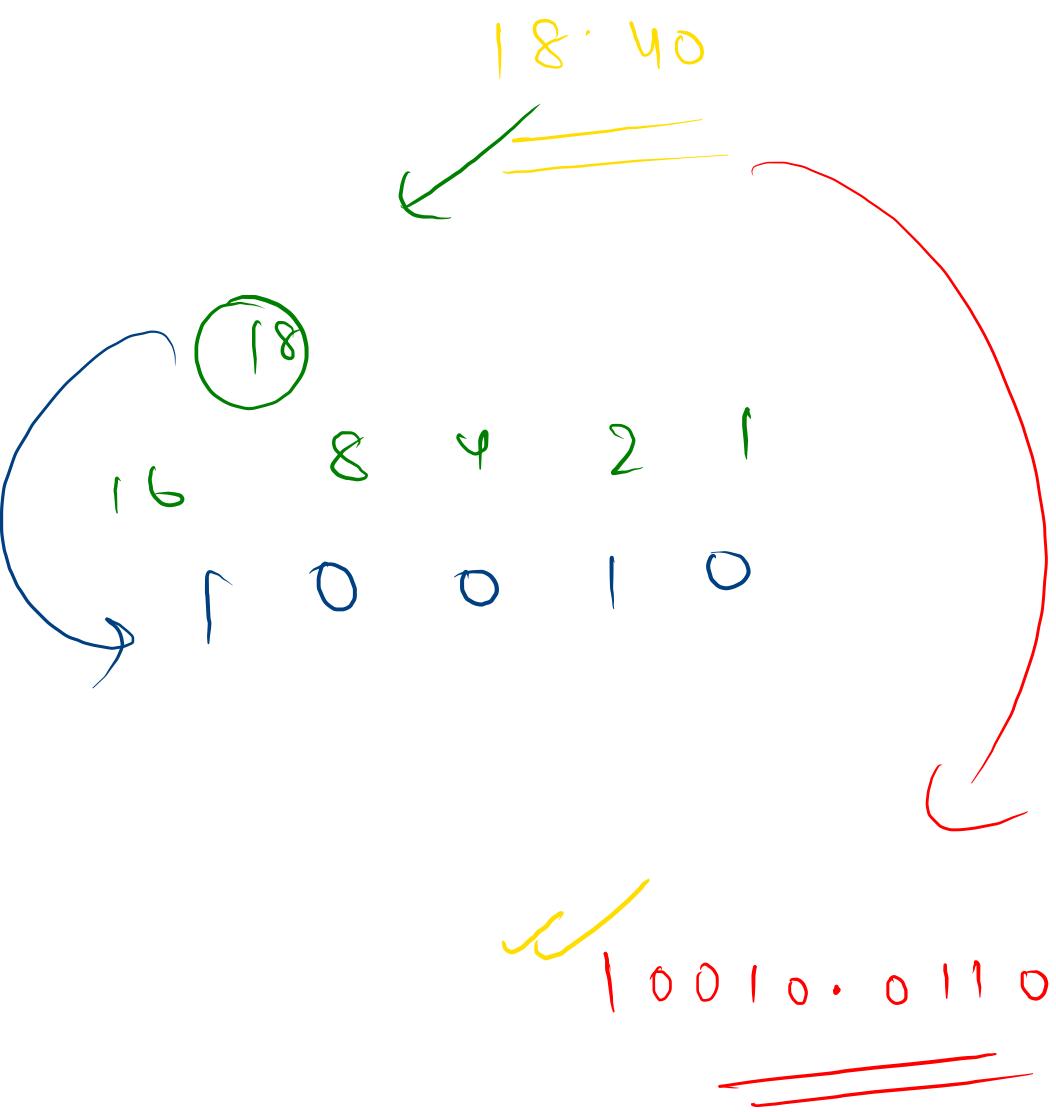
$0.25 \times 2 = 0.5 \rightarrow 0$

$0.5 \times 2 = 1 \rightarrow 1$

1.25 ↗

1 → |

1.01 ↙



$$0.40 \rightarrow \underline{\underline{0110}}$$

$$\Downarrow$$

$$= 0.40 \times 2 = 0.80 \approx 0$$

$$0.8 \times 2 = 1.6 \approx 1$$

$$0.6 \times 2 = 1.2 \approx 1$$

$$0.2 \times 2 = 0.4 \approx 0$$

$\checkmark 0.01001$

0.3

$$0.3 \times 2 = 0.6 \rightarrow 0$$

$$0.6 \times 2 = 1.2 \rightarrow 1$$

$$0.2 \times 2 = 0.4 \rightarrow 0$$

$$0.4 \times 2 = 0.8 \rightarrow 0$$

$$0.8 \times 2 = 1.6 \rightarrow N$$

$\frac{0.6}{\text{Repeating}}$

Exactly represents finite
non-repeating form