

Divide Two Numbers

$$\rightarrow 17/5$$

Result = 0

$$5 \ll 1 (2^0) \Rightarrow 10 \quad ; \quad \text{shifts} = 1$$

$$10 \ll 2 (2^1) \Rightarrow 20 \quad ; \quad \text{shifts} = 2$$

$$20 > 17 \therefore \dots \text{shifts} \Rightarrow \text{shifts} = 1$$

$$\therefore \text{Result} = 2^{\text{shifts}} = 2^1 = 2.$$

$$\begin{aligned} \text{LDividend} &= 17 - (5 \times (1 \ll 1)) \\ &= 17 - (5 \times 2) \\ &= 17 - 10 = 7 \end{aligned}$$

17 = LDividend

5 = LDivisor

$$\rightarrow 7/5$$

Result = 2

$$5 \ll 1 (2^0) \Rightarrow 10 \quad \text{shifts} = 1$$

$$10 > 7 \therefore \dots \text{shifts} \Rightarrow \text{shifts} = 0$$

$$\begin{aligned} \text{Result} &= 2 + (2^{\text{shifts}}) = 2 + (2^0) \\ &= 2 + 1 = 3 \end{aligned}$$

7 = LDividend

5 = LDivisor