Decimal Number System

Wednesday, April 2, 2025 9:19 AM

Roman Number system

i ii iii iv v vi ....

Tally

I II III IIII IIIII ....

Decimal Number system

0 1 2 3 4 5 6 7 8 9

Task [2, 4, 6, 5] → mathematical Way. order not a matter

$2 \times 1 = 2$
$4 \times 10 = 40$
$6 \times 100 = 600$
$5 \times 1000 = 5000$ +
5642

[7, 3, 2]

$7 \times 10^0 = 7$
$3 \times 10^1 = 30$
$2 \times 10^2 = 200$
237

ans = 1
ans += arr[i] * Math.pow(10, i)
index.

10^3 10^2 10^1 10^0
5 6 4 2

Place Value

$2 \times 10^0 = 2$
$4 \times 10^1 = 40$
$6 \times 10^2 = 600$
$5 \times 10^3 = 5000$
5642

Task Difference of 46 and 64 is → 18

Task

$x + y = 10$

$4 + 6 = 10$

$6 + 4 = 10$

Difference of 46 and 64 is → 18

$$\begin{array}{r} 64 \\ -46 \\ \hline 18 \end{array}$$

find the number such way where the difference will be 36.

$x + y = 10$

$(10y + x) - (10x + y) = 36$

$\Rightarrow 10y + x - 10x - y = 36$

$\Rightarrow 9y - 9x = 36$

$\Rightarrow 9(y - x) = 36$

$\Rightarrow y - x = 4$

$x + y = 10$

$y - x = 4$

$2y = 14$

$y = \frac{14}{2} = 7$

$y = 7$

$x + y = 10$

$x + 7 = 10$

$x = 10 - 7 = 3$

$y = 7, \quad x = 3$

The number is 37 → $3 + 7 = 10$

$7 + 3 = 10$

$$\begin{array}{r} 73 \\ -37 \\ \hline 36 \end{array}$$ ✓

* using decimal number system, what is the highest number that we can represent using one digit

→ 9

9 is the highest

9) is the highest