

Missing number in an array

0	1	2	3	4	5
1	2	4	7	6	5

Standard
mathematical
formula

Output = 3

$n = 6$

$n = n + 1$

$$\text{Sum of natural numbers} = \frac{n(n+1)}{2}$$

$$\frac{(n+1)(n+2)}{2}$$

$$= \frac{7 \times 8}{2} = 28$$

$$\frac{\text{sum of elements in an array}}{= 25}$$

$$\text{Missing Element} = 28 - 25$$

$$= 3$$

$\frac{\text{int}}{\downarrow}$

sum of natural numbers = $\frac{(n+1) \times (n+2)}{2}$

$n \longrightarrow \underline{\text{very high}}$

Lesson Plan

Overflow