

Puzzle – 40

Q- Handshake Problem

At a party, everyone shook hands with everybody else. There were 66 handshakes. How many people were at the party?

My Approach and Solution –

Let's suppose there are 'n' people in the party.

First person will shake hands with (n-1) people

Second person will shake hands with (n-2) people

Third person will shake hands with (n-3) people

So total number of handshakes will be equal to $= (n-1) + (n-2) + (n-3) + \dots + 3 + 2 + 1$

i.e. = 66 (given in the problem statement)

So, upon analysing, we get that $n = 12$

Therefore, there were 12 people in that party.