Puzzle – 08

Q- Final Ages of Daughters Puzzle

Anand has three daughters. His friend Ravi wants to know the ages of his daughters. Anand gives him first hint.

1. The product of their ages is 72. Ravi says, this is not enough information ,then Anand gives him a second hint.

2. The sum of their ages is equal to my house number. Ravi goes out and look at the house number and tells "I still do not have enough information to determine the ages". Anand admits that Ravi cannot guess with these hints, and then he gives him the third hint

3. The oldest of the girls likes strawberry ice-cream. now, Ravi is able to guess after the third hint. Can you guess what are the ages of three daughters?

My Approach and Solution –

Starting with the first and second hint, we have the following iterations to choose our answer from –

i.	1 * 1 * 72 = 72	Sum = 74
ii.	1 * 2 * 36 = 72	Sum = 39
iii.	1 * 3 * 24 = 72	Sum = 28
iv.	1 * 4 * 18 = 72	Sum = 23
v.	1 * 6 * 12 = 72	Sum = 19
vi.	1 * 8 * 9 = 72	Sum = 18
vii.	2 * 2 * 18 = 72	Sum = 22
viii.	2 * 3 * 12 = 72	Sum = 17
ix.	2 * 4 * 9 = 72	Sum = 15
x.	2 * 6 * 6 = 72	Sum = 14
xi.	3 * 3 * 8 = 72	Sum = 14
xii.	3 * 4 * 6 = 72	Sum = 13

If the house number of Anand was unique in sum of daughter's age, then Ravi would have straight away guessed the age of his daughters but he was not able to do so there by we can conclude that the age of the daughter is can I either be from the possibility number 10 or 11.

Now, according to the third hint, it is said that the oldest of the girls likes ice creams, so what it tells us that there exists an eldest girl. This eliminates the possibility number 10.

So now what we are left with this possibility number 11, which is the final answer. So Ravi gas a day that the daughters age of Anand are:

Daughter 1   -   3 years

Daughter 2   -   3 years

Daughter 3   -   8 years