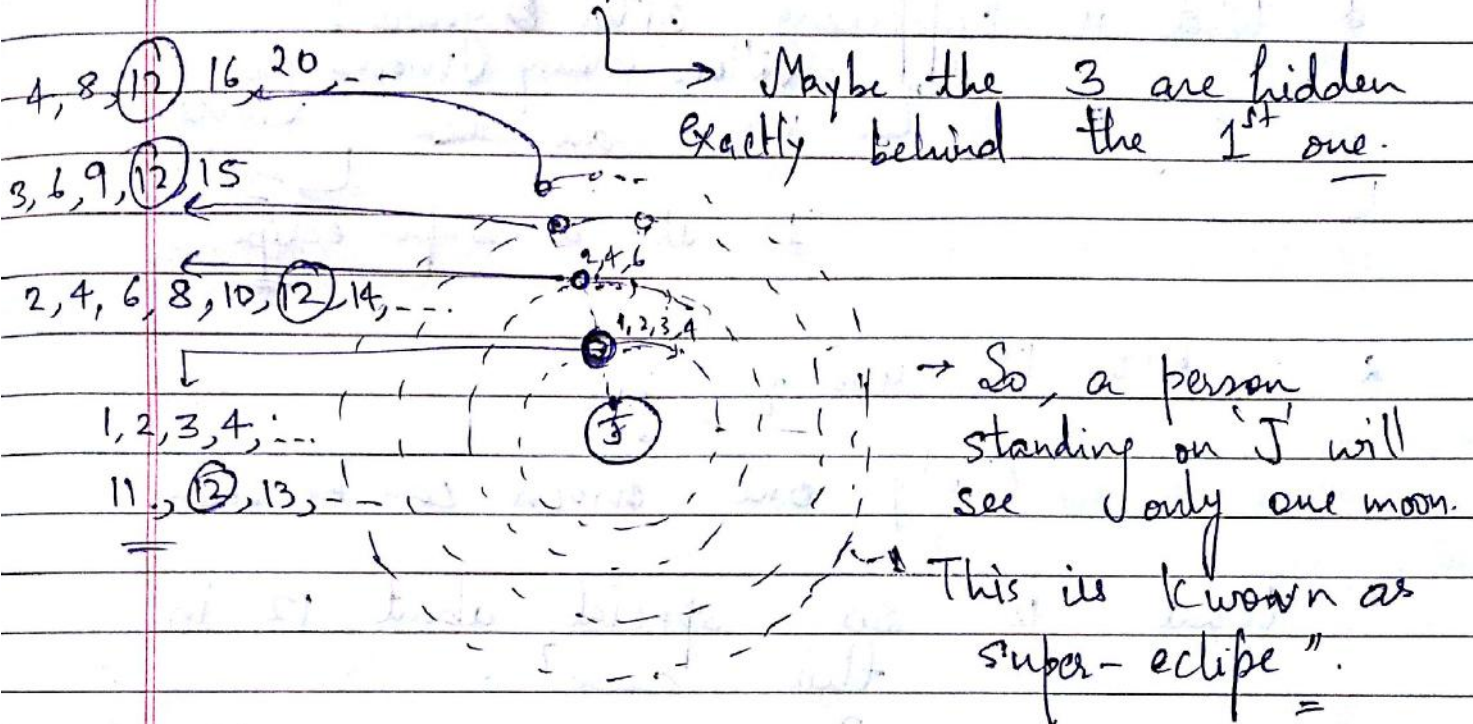


Lesson 10 (22nd June)

- Objectives:
- Kids will be able to solve problems involving common multiples
 - Find common multiples of a set of numbers.
 - Find LCM and understand its significance.

Opening (+ INM) [15 min]

How is it possible that Jupiter has four moons but only one is visible?



Now, today was the super-eclipse.

→ What will happen next day or in a few days!

↳ Moons will move and all will become visible.

→ Now, we need to find after how many years will the ^{person see the} super-eclipse happen again?

↳ When will they come ^{here} in the same line again?

→ Given that, Moon A takes one year to complete the revolution.

↳ After how many years will it be in the same position?

A \rightarrow 1, 2, 3, ..., 10, 11, (12), 13, ...
 B takes 2 yrs \rightarrow 2, 4, 6, 8, 10, (12), 14, ...
 C " 3 " \rightarrow 3, 6, 9, (12), 15, ...
 D " 4 " \rightarrow 4, 8, (12), 16, ...

* What is happening after 12 years?
 How many moons are visible
 \rightarrow A, B, C are there \rightarrow 2
 Is it a super eclipse.

* After 12 yrs \rightarrow ?
 Only one moon can be seen.

* What is so special about 12 in this case?
 \rightarrow It is a multiple of all these numbers.
 (Known as "Common Multiple")

Do you think
 After how many years will they meet again now?
 \rightarrow 12 years more

\rightarrow So, 12 is the lowest CM. \Rightarrow 24 years from starting.
 * How many times will super eclipse take place in 50 years. \rightarrow 4 times

Practice 4c) (10 min)

↳ If 5 moons, how many super eclipses in 90 years.

- (1) A → 1, 2, 3, 4, ...
- (2) B → 2, 4, 6, 8, 10, 12, 14, 16, ...
- (3) C → 3, 6, 9, 12, 15, 18, 21, 24, ...
- (4) D → 4, 8, 12, 16, 20, ...
- (5) E → 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ...

↳ Now, ~~the~~ since the moons are increasing, it is becoming a bit difficult to have a common time for a super eclipse.

↳ We need to find that year when all 5 come in the same line.

↳ We need to find the number which is a multiple of all these.

↳ "Common multiple. Take 3 minutes to find out".

10 min [I.P → Q 1, a, b
↳ Discuss.

5 min [→ Q 13, 14

→ Q 5.

5 min [H.W: 1a), b), 4 b), 5, 11, 12, 13, 14, 15,

20.

↳ 3 mins later
(↳ 60 will be no.)

If you didn't get it, you can do it as a part of your H.W.