

# RAM Maths Circle (Lodha Schools)

Date: January 06, 2025

Grade 5

In this session, the mentor engaged the students with the following fun and interesting questions.

1. The number of boys in the class is three times the number of girls in the class. Which of the following options cannot represent the total number of children in the class?
  - a. 41
  - b. 44
  - c. 46
  - d. 42
2. Find the sum of all two-digit natural numbers which are multiples of 11.
3. Find the sum of all two-digit natural numbers that are multiples of 3 as well as 4.
4. Find the smallest number which, when divided by any number from 2 to 10, gives a remainder of 1.
5. Four friends need to cross a bridge. They start on the same side of the bridge. A maximum of two people can cross at any time. It is night and they have just one lamp. People that cross the bridge must carry the lamp to see the way. A pair must walk together at the speed of the slower person:
  - A: - takes 1 minute to cross
  - B: - takes 2 minutes to cross
  - C: - takes 7 minutes to cross
  - D: - takes 10 minutes to crossFind the shortest time taken to cross the bridge. What is the second shortest time to cross the bridge? If one person takes 10 minutes to cross the bridge, and another takes 7 minutes, how can they all cross in just 17 minutes?