

# RAM Maths Circle

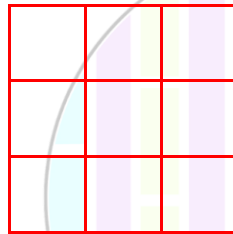
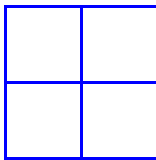
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In this session, the mentors put forth two simple yet challenging questions. The questions proved to be a good catalyst to foster problem solving in the students.

## Questions

- Suppose you are on a  $2 \times 2$  grid, and want to go from the bottom left to the top right. How many different paths can you take? Conditions are you can only go right and up. (Similar question for a  $3 \times 3$  grid)



- Arrange the numbers 1, 2, . . . , 6 in the circles about such that the difference between two numbers in adjacent circles in the same row, will be same as number in the circle above it. How many solutions exist? Justify your answer.