

Cheenta - Filix Math Olympiad Program

Starter Module

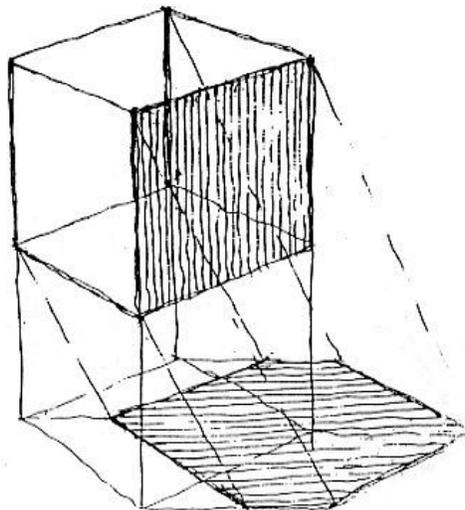
Day 1 - Forerunner problems

(Try these before coming to class)

Problem 1

You have constructed a physical model of the cube in Day 0. Now lift that up in the air above a piece of paper. How will its **shadow** look like in the plane of the paper?

Here is one way of thinking about the shadow.



Can you draw other ways of 'drawing the shadow'?

Problem 2

Stars have beautiful patterns. Consider the following constellation of stars called Orion. Do you see the three stars in the middle? If you join them using a straight line and extend that straight line you will hit another well known star in the night sky. What is the name of this well known star? Can you find out from the internet?



Now draw three points A, B, C in a piece of paper. Will A, B, C always be in a straight line?

Measure the length of AB, BC and CA. Can you draw three points in a way that $AB + BC < CA$?

Problem 3

Three friends go for a picnic. They want to make a fire. One of them gave 3 logs. Second friend gave 5 logs. Third one said, 'I have no wood but I will give you Rs. 80'. How will the first two friends distribute the money amongst themselves?