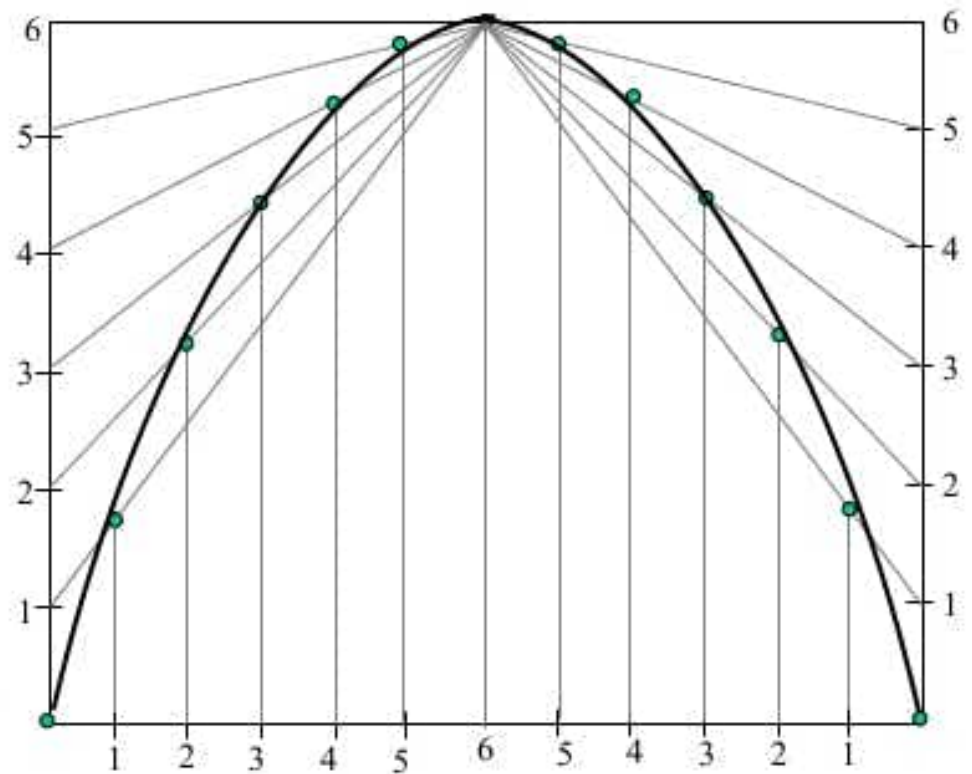


**PROBLEM 7: A BALL THROWN IN AIR ATTAINS 100 M HIEGHT AND COVERS HORIZONTAL DISTANCE 150 M ON GROUND. Draw the path of the ball (projectile)-**

## **PARABOLA** **RECTANGLE METHOD**

### STEPS:

1. Draw rectangle of above size and divide it in two equal vertical parts
2. Consider left part for construction. Divide height and length in equal number of parts and name those 1,2,3,4,5& 6
3. Join vertical 1,2,3,4,5 & 6 to the top center of rectangle
4. Similarly draw upward vertical lines from horizontal 1,2,3,4,5 And wherever these lines intersect previously drawn inclined lines in sequence Mark those points and further join in smooth possible curve.
5. Repeat the construction on right side rectangle also. Join all in sequence. **This locus is Parabola.**



**Problem no.8:** Draw an isosceles triangle of 100 mm long base and 110 mm long altitude. Inscribe a parabola in it by method of tangents.

- Solution Steps:**
1. Construct triangle as per the given dimensions.
  2. Divide its both sides into same no. of equal parts.
  3. Name the parts in ascending and descending manner, as shown.
  4. Join 1-1, 2-2, 3-3 and so on.
  5. Draw the curve as shown i.e. tangent to all these lines. The above all lines being tangents to the curve, it is called method of tangents.

