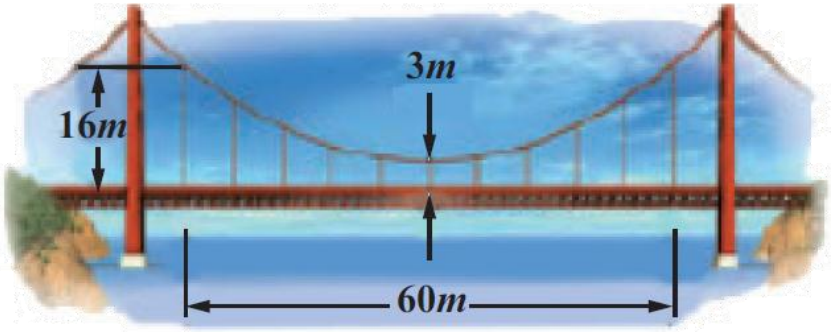
# Centum Preparation 100 Days plan class 12 Maths

| Q.No. | DAY - 35 |
|---|---|
| 205 | 5. Parabolic cable of a $60m$ portion of the roadbed of a suspension bridge are positioned as shown below. Vertical Cables are to be spaced every $6m$ along this portion of the roadbed. Calculate the lengths of first two of these vertical cables from the vertex.   |
| 206 | 7. A rod of length $1.2m$ moves with its ends always touching the coordinate axes. The locus of a point $P$ on the rod, which is $0.3m$ from the end in contact with $x$-axis is an ellipse. Find the eccentricity. |
| 207 | 8. Assume that water issuing from the end of a horizontal pipe, $7.5m$ above the ground, describes a parabolic path. The vertex of the parabolic path is at the end of the pipe. At a position $2.5m$ below the line of the pipe, the flow of water has curved outward $3m$ beyond the vertical line through the end of the pipe. How far beyond this vertical line will the water strike the ground? |
| 208 | 9. On lighting a rocket cracker it gets projected in a parabolic path and reaches a maximum height of $4m$ when it is $6m$ away from the point of projection. Finally it reaches the ground $12m$ away from the starting point. Find the angle of projection. |
| | End of the chapter 5 |