Centum Preparation 100 Days plan class 12 Maths

Q.No.	DAY - 55
340	6. A farmer plans to fence a rectangular pasture adjacent to a river. The pasture must contain 1,80,000 sq.mtrs in order to provide enough grass for herds. No fencing is needed along the river. What is the length of the minimum needed fencing material?
341	7. Find the dimensions of the rectangle with maximum area that can be inscribed in a circle of radius 10 cm.
342	8. Prove that among all the rectangles of the given perimeter, the square has the maximum area.
343	9. Find the dimensions of the largest rectangle that can be inscribed in a semi circle of radius r cm.
344	10. A manufacturer wants to design an open box having a square base and a surface area of 108 sq.cm. Determine the dimensions of the box for the maximum volume.
345	11. The volume of a cylinder is given by the formula $V = \pi r^2 h$ Find the greatest and least values of V if $r + h = 6$.
346	12. A hollow cone with base radius a cm and height b cm is placed on a table. Show that the volume of the largest cylinder that can be hidden underneath is $\frac{4}{9}$ times volume of the cone.
End of chapter 7	