Ex- 6.1

* A = [ when limits of x are given]
* A = [ when limits of y are given]

**Sample Question:** Sketch region enclosed by curves and find its’ area. (*Use formula 1)*

Ex- 6.2

* V = [ revolving about x-axis]
* V = [ revolving about y-axis]

**Sample Question:** Find the ***volume*** of the solid that results when the region enclosed by the curves is revolving ***about y-axis***. (*Use formula 2)*

Ex- 6.3

* V = [ revolving about y-axis]
* V = [ revolving about x-axis]

**Sample Question:** Use ***cylindrical shells*** to find the ***volume*** of the solid generated when the region enclosed by the curves is revolved ***about y-axis***. (*Use formula 1*)

**Sample Question:** Use ***cylindrical shells*** to find the ***volume*** of the solid generated when the region enclosed by the curves is revolved ***about x-axis***. (*Use formula 2*)

Ex- 6.4

* L = ;
* L = ;
* L = ;

**Sample Question:** Find the exact ***arc length*** of the curve from (Use formula 1)

Ex- 6.5

* S = [ revolving about x-axis]
* S = [ revolving about y-axis]

**Sample Question:** Find the ***area*** of the surface generated by revolving the curve y = ***about x-axis.*** (*Use formula 1*)

Steps for completing the formation of Integration:

1. Figure out that if it is equation of - .
2. If – the limits are of x-axis, if the limits are of y-axis.
3. Figure out which equation is- and which equation is- .   
     
   **Technique to find out this is:**   
     
   The line or curve which is at a greater distance from ***x-axis*** is considered as and the one which is at a greater distance from ***y-axis*** is considered as.   
   **It is to be kept in mind** that when we are considering distance, we are considering it with respect to the shaded region.   
   **Another fact is,** the axis lines are also functions, e.g .