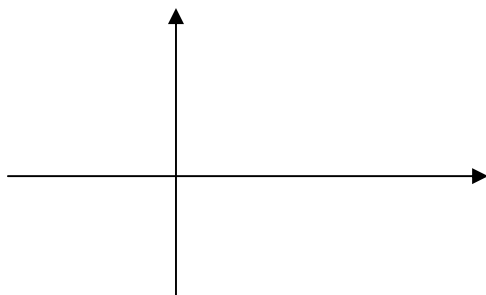


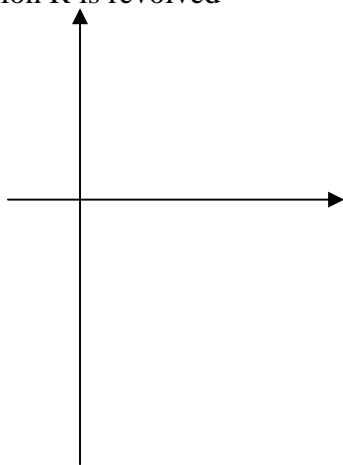
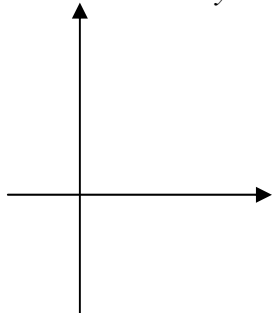
(Write the Name of Test which you use in your Solution)

1. Sketch the region R between the two curves:  $x = y^2$  and  $y = x - 2$  and only set up the integral which gives the area of region R.

**Sketch:****Integral:**

2. Sketch the region R between the two curves:  $y = \sqrt{x} + 3$  and  $y = e^x$ ,  $0 \leq x \leq 2$  and sketch the Solid of revolution when the region R is revolved

- i. about the line  $y = -1$

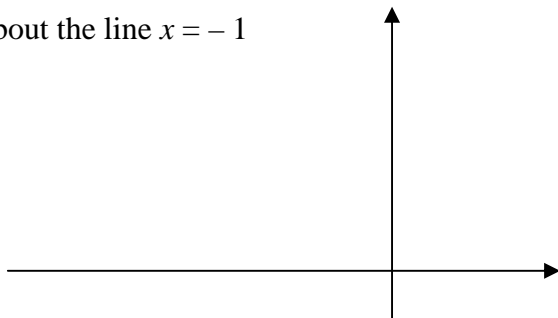


(Sketch the Region)

(Sketch the Solid)

Find Volume of (**Washer or Shell**):Set-up **Only Integral** for Volume of the Solid:

- ii. about the line  $x = -1$



(Sketch the Solid)

Find Volume of (**Washer or Shell**):Set-up **Only Integral** for Volume of the Solid:

3. For the curve C:  $y = \frac{1}{3}x^3 - \frac{1}{4}x^{-1}; 1 \leq x \leq 2$ ,

- i. simplify  $\sqrt{1+(y')^2}$ .

- ii. If the curve C is revolved about the  $x$ -axis,

- a) Find the surface area of **Frustum**

- b) Set-up **Only Integral** for **Surface Area of solid**