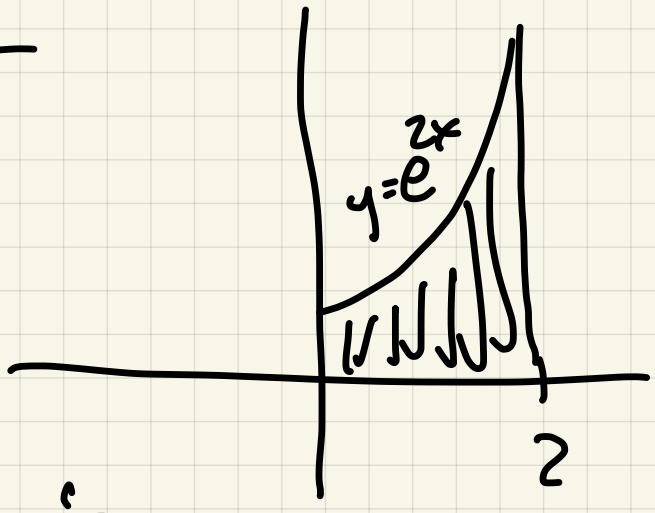
Quiz 4



[1] Volume about y-axis:

Shells: $\int_0^2 2\pi x e^{2x} dx$

[2] Volume about x-axis:

Disks $\int_0^2 \pi e^{4x} dx$

[3] Volume about line $x = 4$:

Shells $\int_0^2 2\pi \underbrace{(4-x)}_{\text{rad}} \underbrace{e^{2x}}_{\text{ht}} dx$

[4] Volume about line $y = -1$:

Washers: $\int_0^2 \pi \left(\underbrace{(e^{2x}+1)}_{R = \text{outer}}{}^2 - \underbrace{1^2}_{r = \text{inner}} \right) dx$