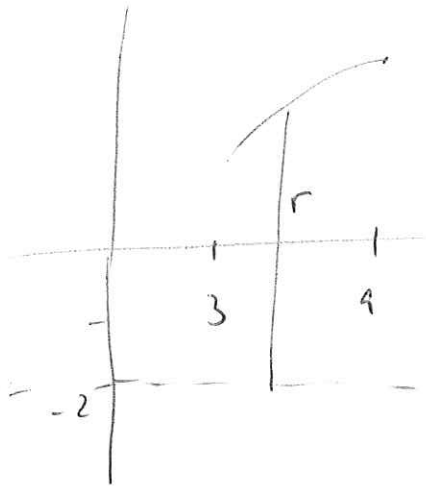


$$7] \quad SA = \int_a^b 2\pi r \, ds$$

parametrize.



$$y = t$$

$$x = 1 + 2t$$

$$1 \leq t \leq 2$$

$$r = y + 2$$

$$r = t + 2$$

$$SA = \int_1^2 2\pi (t+2) \sqrt{(4t)^2 + 1^2} \, dt$$

$$= \int_1^2 2\pi (t+2) \sqrt{16t^2 + 1} \, dt$$