National University of Sciences & Technology
School of Electrical Engineering and Computer Science
Department of Basic Sciences

MATH-243: Vector Calculus (3+0): BEE-2k20-C Fall 2021

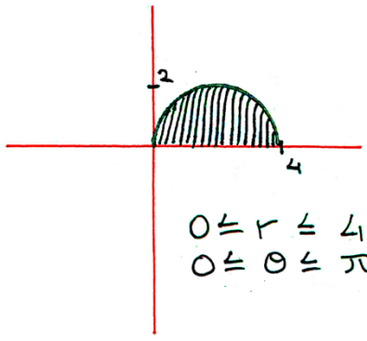
Activity # 1	
Maximum Marks: **5**	Instructor: Dr. Naila Amir
Date: **29 – 09 – 2021**	Duration: 10 Minutes
Name: **Muhammad Umer**	CMS ID: **345834**

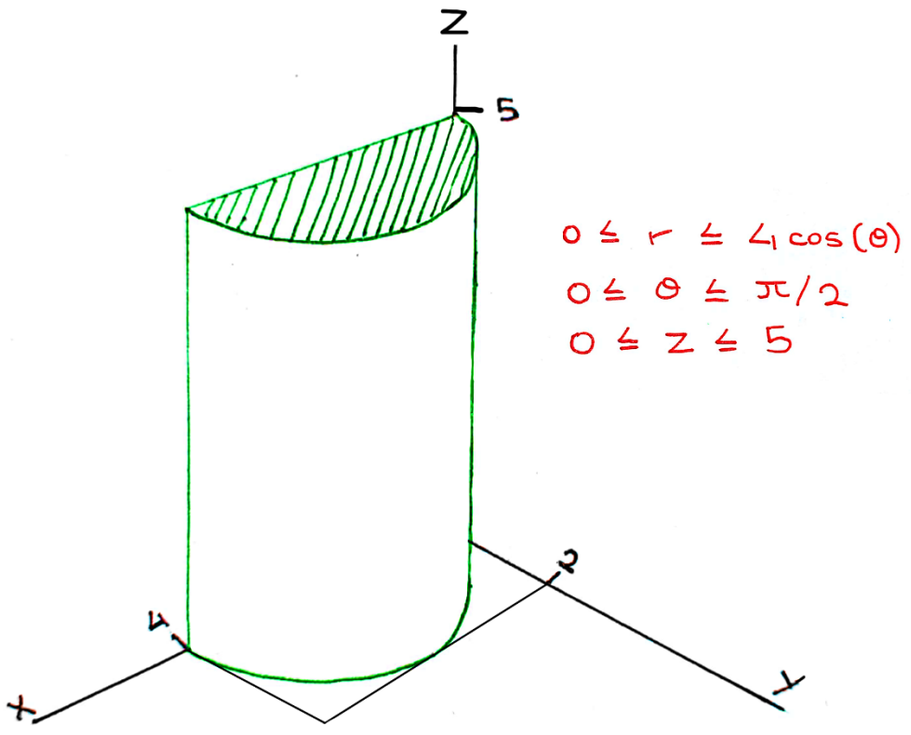
Question:

Sketch the solid described by the following inequalities:

$$0 \le r \le 4\cos\theta\,;\;\; 0 \le \theta \le \frac{\pi}{2};\quad 0 \le z \le 5.$$

To get a basic sketch of the desired inequalities in space, we first draw the base on the xy-plane that can later be scaled upwards in the z-axis direction.





Where the highlighted sections imply that it is a solid cylinder rather than a hollow one; in case of an equality