

# Assignment 3

G.Rajanarsavva

Download all python codes from

<https://github.com/grajanarsavva/Matrix-Theory/tree/main/Assignment3/Codes>

and latex-tikz codes from

<https://github.com/grajanarsavva/Matrix-Theory/tree/main/Assignment3>

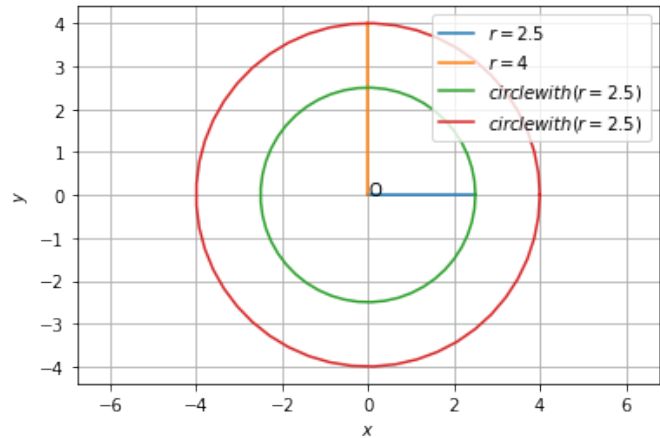


Fig. 2.1: Concentric circles with centre as origin and radii 2.5 and 4 respectively

## 1 QUESTION No.2.52

With the same centre **O**, draw two circles of radii 2.5 and 4.

## 2 SOLUTION

All input values required to plot fig.2.1 are given in table 2.1 as shown below: Fig. 2.1 is plotted

	Symbols	Circle1	Circle2
Centre	<b>O</b>	$\begin{pmatrix} 0 \\ 0 \end{pmatrix}$	$\begin{pmatrix} 0 \\ 0 \end{pmatrix}$
Radius	$r_1, r_2$	2.5	4
Polar coordinate	$\mathbf{C}_1, \mathbf{C}_2$	$2.5 \begin{pmatrix} \cos \theta \\ \sin \theta \end{pmatrix}$	$4 \begin{pmatrix} \cos \theta \\ \sin \theta \end{pmatrix}$
Angle	$\theta$	$0-2\pi$	$0-2\pi$

TABLE 2.1: Input values

using radii and polar coordinates with the angle ranging from 0 to  $2\pi$ .