# Assignment 3

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## 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 | **O** | $\begin{pmatrix} 0 \\ 0 \end{pmatrix}$ | $\begin{pmatrix} 0 \\ 0 \end{pmatrix}$ |
| 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

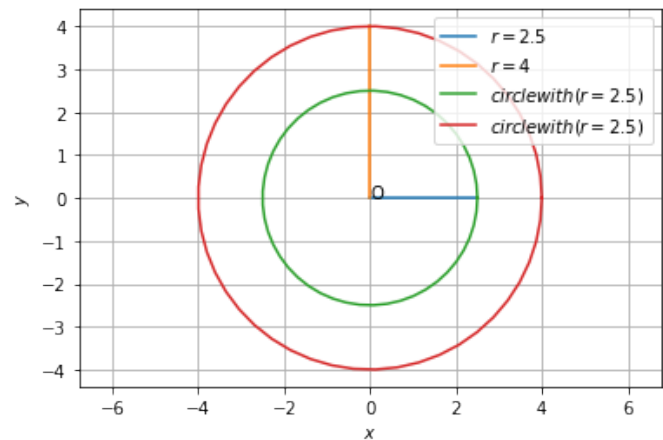using radii and polar coordinates with the angle ranging from 0 to $2\pi$ .



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