AI1100 ASSIGNMENT1

AI21BTECH11016

March 2022

0.1 Problem 4-c

- Drawing a circle of radius $4cm$. Taking a point P outside the circle at a distance of $7cm$ from the centre of the circle and constructing a pair of tangents to the circle from that point using Python.
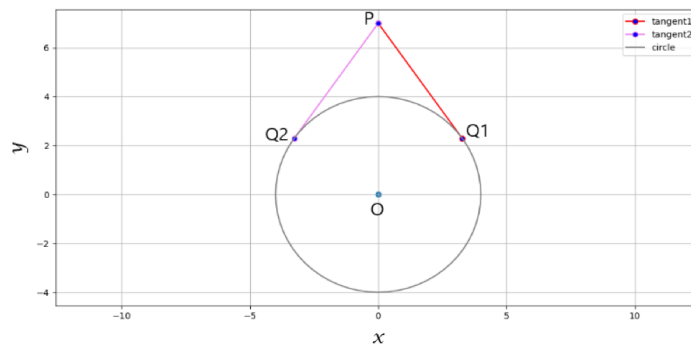
2

Figure 1:

- Calculating the length of tangent $PQ2$, which is the third side of the triangle OQ2P, right-angled at Q2 using the Pythogorean theorem using C.

2

```
D:\c>gcc exe.c

D:\c>a.exe
length of OQ2 = 4
length of OP = 7
length of PQ2 = 5.744563

D:\c>
```

Figure 2:

Therefore, the length of tangent drawn from P on to the given circle is **5.744563.**