

Spyder (Python 3.7)

File Edit Search Source Run Debug Consoles Projects Tools View Help

Project explorer Editor - D:\Fia\Machine Problem\Problem_2_Python.py IPython console

```

12 y2 = pt2[1]
13 x3 = pt3[0]
14 y3 = pt3[1]
15
16 eq1 = np.array([[x1,y1,1],[x2,y2,1],[x3,y3,1]])
17 m1 = eq1
18 m2 = eq1
19 m3 = eq1
20 eq2 = np.array([[pow(x1,2)+pow(y1,2)],[pow(x2,2)+pow(y2,2)],[pow(x3,2)+pow(y3,2)]])
21
22 dt = np.linalg.det(eq1)
23
24 m1[:,0] = eq2[:,0]
25 s1 = np.linalg.det(m1)/dt
26 d1 = (1/2)*s1
27
28 eq1 = np.array([[x1,y1,1],[x2,y2,1],[x3,y3,1]])
29 m2[:,0] = eq2[:,0]
30 m2[:,1] = eq1[:,0]
31 m2[:,2] = eq1[:,2]
32 s2 = np.linalg.det(m2)/dt
33 e1 = (-1/2)*s2
34
35 eq1 = np.array([[x1,y1,1],[x2,y2,1],[x3,y3,1]])
36 m3[:,0] = eq2[:,0]
37 m3[:,1] = eq1[:,0]
38 m3[:,2] = eq1[:,1]
39 s3 = np.linalg.det(m3)/dt
40 f1 = math.sqrt((pow(d1,2)+(pow(e1,2))+s3))
41
42
43
44 print("Center = (", d1, ", ", e1, ")")
45 print("Radius = ", f1)
46 print("Coefficients = [", d1, ", ", e1, ", ", f1, "]")
47
48
49

```

In [46]: runfile('D:/Fia/Machine Problem/Problem_2_Python.py',
wdir='D:/Fia/Machine Problem')

Point 1: [1,1]
Point 2: [2,4]
Point 3: [5,3]
Center = (3.0 , 2.0000000000000001)
Radius = 2.2360679774997894
Coefficients = [3.0 , 2.0000000000000001 , 2.2360679774997894]

In [46]:
In [47]:

Name	Type	Size	Value
d1	float64	1	3.0
dt	float64	1	-9.999999999999998
e1	float64	1	2.0000000000000001
eq1	int32	(3, 3)	[[1 1 1] [2 4 1] [5 3 1]]

Variable explorer File explorer

History log

history.py

[5,3]
clear
runfile('D:/Fia/Machine Problem/Problem_2_Python.py', wdir='D:/Fia/Machine Problem')

Permissions: RW End-of-lines: CRLF Encoding: ASCII Line: 27 Column: 1 Memory: 85 %

8:42 PM
12/8/2019