```
a=[[1,0,0],[0,1,0],[0,0,1]]
b=[[1,2,3],[4,5,6],[7,8,9]]
c=[]
for indrow in range(3):
  c.append([])
  for indcol in range(3):
    c[indrow].append(0)
    for indaux in range(3):
      c[indrow][indcol] += a[indrow][indaux] * b[indcol][indaux]
print(c)
```

```
[[1, 4, 7], [2, 5, 8], [3, 6, 9]]
```

```
def perimeter (listing):
  leng=len(listing)
  perimeter=0;
  for i in range(0,leng-1):
    dist=(((listing[1][0]-listing[i+1][0])**2)+((listing[i][1]-listing[i+1][1])**2))**0.5
    perimeter=perimeter + dist
  perimeter=perimeter + (((listing[0][0]-listing[leng-1][0])**2) + ((listing[0][1]-listing[leng-1][1])**2))**0.5
  return perimeter
L=[(1,3),(2,7),(3,9),(-1,8)]
print(perimeter(L))
```

```
14.783510444802673
```

Date: / /20 Activity 8 Day:

c[indrow][indcol] = c[indrow][indcol] + a[indrow][indaux] * b[indaux][indcol]

a = [[1,0,0], [0,1,0], [0,0,1]]

$$b = \begin{bmatrix} [1,2,3] \\ [4,5,6] \\ [7,8,9] \end{bmatrix}$$

indrow = 0 , indcol = 0 , indaux = 0

c[0][0] = c[0][0] + a[0][0] * b[0][0]

c[0][0] = 0 + (1) * (1) = 1

indaux = 1

c[0][0] = c[0][0] + a[0][1] * b[1][0]

= 1 + 0 * 4 = 1

indaux = 2

c[0][0] = c[0][0] + a[0][2] * b[2][0]

= 1 + 0 * 7 = 1

indrow = 0 , indcol = 1 , indaux = 0

c[0][1] = c[0][1] + a[0][0] * b[0][1]

= 0 + 1 * 2 = 2

indaux = 1

c[0][1] = c[0][1] + a[0][1] * b[1][1]

= 2 + 0 * 5 = 2

indaux = 2

c[0][1] = c[0][1] + a[0][2] * b[2][1]

= 2 + 0 * 8 = 2

Day:

indrow = 0, indcol = 2, indaux = 0

c[0][2] = c[0][2] + a[0][0] × b[0][2]

= 0 + 1 × 3 = 3

indaux = 1

c[0][2] = c[0][2] + a[0][1] × b[1][2]

= 3 + 0 × 6 = 3

indaux = 2

c[0][2] = c[0][2] + a[0][2] × b[2][2]

= 3 + 0 × 9 = 3

indrow = 1, indcol = 0, indaux = 0

c[1][0] = c[1][0] + a[1][0] × b[0][0]

= 0 + 0 × 1 = 0

indaux = 1

c[1][0] = c[1][0] + a[1][1] × b[1][0]

= 0 + 1 × 4 = 4

indaux = 2

c[1][0] = c[1][0] + a[1][2] × b[2][0]

= 4 + 0 × 7 = 4

indrow = 1, indcol = 1, indaux = 0

c[1][1] = c[1][1] + a[1][0] × b[0][1]

= 0 + a[1][0] × b[0][1]

= 0 + 0 × 2 = 0

indrow = 1, indcol = 1 indaux = 1

c[1][1] = c[1][1] + a[1][1] × b[1][1]

= 0 + 1 × 5 = 5

indrow = 1 , indcol = 1 , indaux = 2

c[1][1] = c[1][1] + a[1][2] × b[2][1]

= 5 + 0 × 8 = 5

indrow = 1 , indcol = 2 , indaux = 0

c[1][2] = c[1][2] + a[1][0] × b[0][2]

= 0 + 0 × 3 = 0

indaux = 1

c[1][2] = c[1][2] + a[1][1] × b[1][2]

= 0 + 1 × 6 = 6

indaux = 2

c[1][2] = c[1][2] + a[1][2] × b[2][2]

= 6 + 0 × 9 = 6

indrow = 2 , indcol = 0 , indaux = 0

c[2][0] = c[2][0] + a[2][0] × b[0][0]

= 0 + 0 × 1 = 0

indaux = 1

c[2][0] = c[2][0] + a[2][1] × b[1][0]

= 0 + 0 × 4 = 0

indaux = 2

c[2][0] = c[2][0] + a[2][2] × b[2][0]

= 0 + 1 × 7 = 7

indrow = 2 , indcol = 1 , indaux = 0

c[2][1] = c[2][1] + a[2][0] × b[0][1]

= 0 + 0 × 2 = 0

indaux = 1

c[2][1] = c[2][1] + a[2][1] x b[1][1]

= 0 + 0 x 5 = 0

indaux = 2

c[2][1] = c[2][1] + a[2][2] x b[2][1]

= 0 + 1 x 8 = 8

indrow = 2 indcol = 2 indaux = 0

c[2][2] = c[2][2] + a[2][0] x b[0][2]

= 0 + 0 x 3 = 0

&

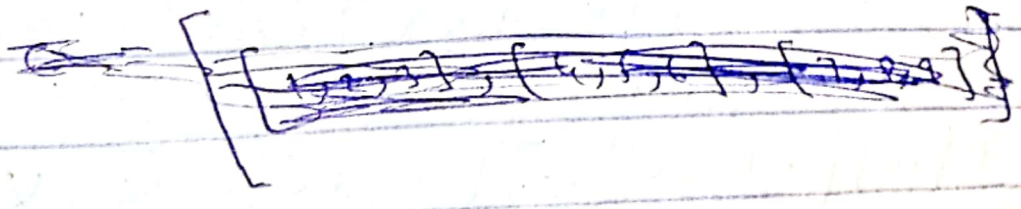
indaux = 1

c[2][2] = c[2][2] + a[2][1] x b[1][2]

= 0 + 0 x 6 = 0

c[2][2] = c[2][2] + a[2][2] x b[2][2] (indaux = 2)

= 0 + 1 x 9 = 9



$$C = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

120 **Activity 9** Day:

* def perimeter(listing):

leng = 4

perimeter = 0

for i in range(4-1):

for i = 0

$((1-2)^2+(3-7)^2)^{1/2}$

perimeter = 4.12310

for i = 1

$= ((2-3)^2+(7-9)^2)^{1/2} = 2.23606$

Perimeter = 6.35916

for i = 2

$((3-(-1))^2+(9-8)^2)^{1/2} = 4.12310$

perimeter = 10.38226

perimeter = 10.38226 + $((-1-(-1))^2+(9-8)^2)^{1/2}$

return = 15.7674