

DDA_line

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DDA Line Drawing Algo

Importing Libraries

```
[1]: import numpy as np
import matplotlib.pyplot as mp
```

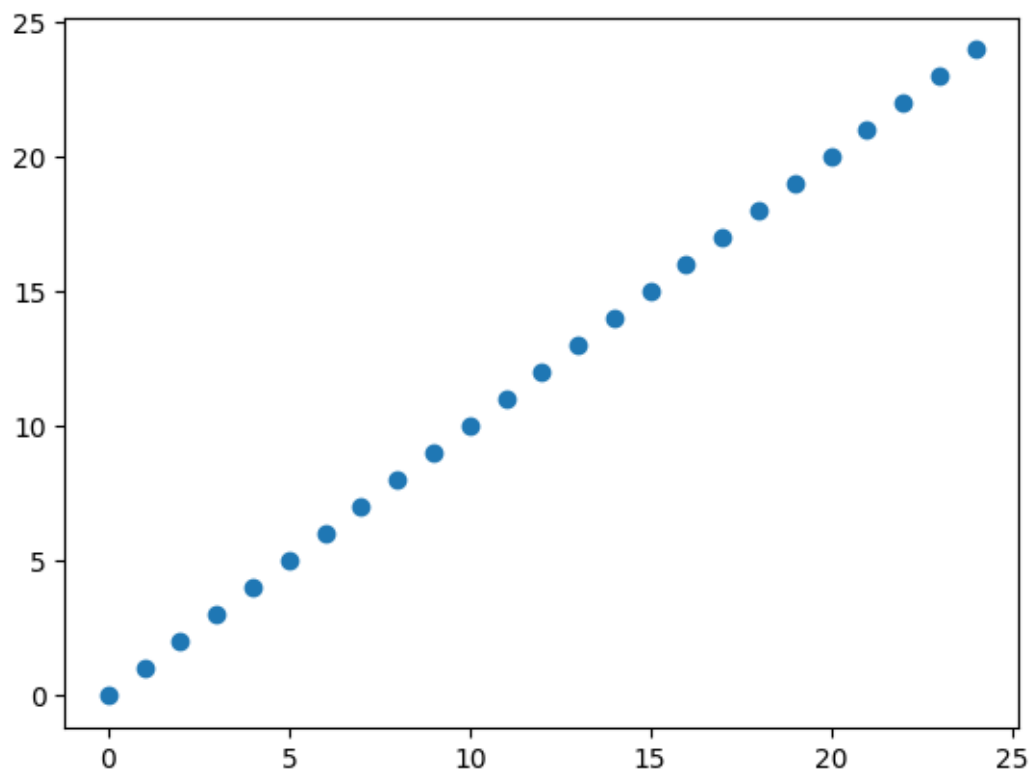
Function

```
[3]: def DDA(x1,y1,x2,y2):
    dx = x2-x1
    dy = y2-y1
    if(abs(dx)>abs(dy)):
        steps = dx
    else:
        steps = dy
    x_inc = dx/steps
    y_inc = dy/ steps
    X = []; Y = []
    for i in range(steps):
        X.append(x1)
        Y.append(y1)
        x1 = round(x1 + x_inc)
        y1 = round(y1 + y_inc)
    return X,Y
```

Example and Plot

```
[4]: X, Y = DDA(0,0,23,25)
```

```
[5]: mp.scatter(X,Y)
mp.show()
```



[]: