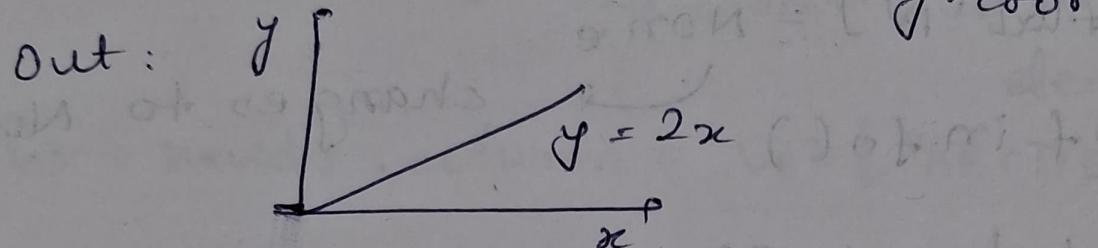


Matplotlib

In : `import matplotlib.pyplot as plt`
`import numpy as np`
`import pandas as pd`

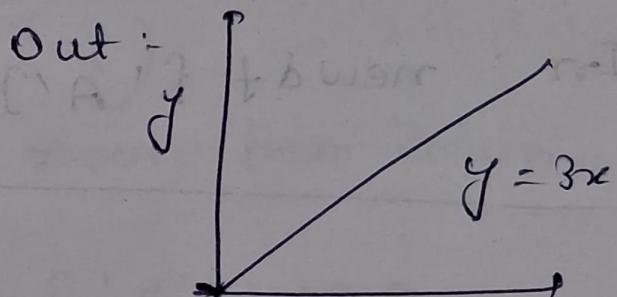
In : `plt.plot([1, 2, 3], [2, 4, 6])`



In : `x = [1, 3, 6]`

()`y = [3, 9, 18]`

`plt.plot(x, y)`



In : `plt.plot(x, y)`

or

`plt.show()` → to get better output

`plt.title('Our first Graph!')`

`plt.xlabel('X-Axis')`

`plt.ylabel('Y-Axis')`

`plt.title('Our First Graph', fontdict=`

`'fontname':`

`'comicsansms'`

`font size': 20`

Same for
labels

In : plt.xticks([0, 1, 2, 3, 4])

plt.yticks([0, 2, 4, 6, 8])

Out: → will decide the length of the graph

In : x = [1, 2, 3, 4]

y = [2, 4, 6, 8]

plt.plot(x, y)

plt.show()

plt.legend() → ?

will not work

Now

In : x = [1, 2, 3, 4]

y = [2, 4, 6, 8]

plt.plot(x, y, label = '2x')

plt.legend()

colour = 'pink',

fontsize = 20, fontname = '3'

plt.plot(x, y, label = '2x', color = 'red',

linewidth = 2, marker = '.',

markersize = 10,

markeredgecolor = 'blue',)

linestyle = ' -_'

left arrow

longer method

shorter method

plt.plot(x, y, 'o', label = '2x')

fmt = [color][marker][line] → shortcut

In: $x2 = np.arange(0, 4, 0.5)$
print(x2) prints from 0 to 4 with
step size 0.5

plt.plot(x2, x2 ** 2), label = 'x^2')

In: plt.plot(x2[:4], x2[:4] ** 2, 'x', label = 'x^2')
↓
from 0 to 4 points only
or

plt.plot(x2[0:3], x2[0:3] ** 2, 'x', label = 'x^2')

Resize your graph

In: plt.figure(figsize = (5, 3), dpi = 300)

In: plt.savefig('my graph.png', dpi = 300)
to save the graph

BAR CHART

Labels = ['A', 'B', 'C']
points the bar graph

values = [1, 4, 2]

plt.bar(values, labels)

plt.show() (Labels, values)

plt.figure (figsize = (6,4))

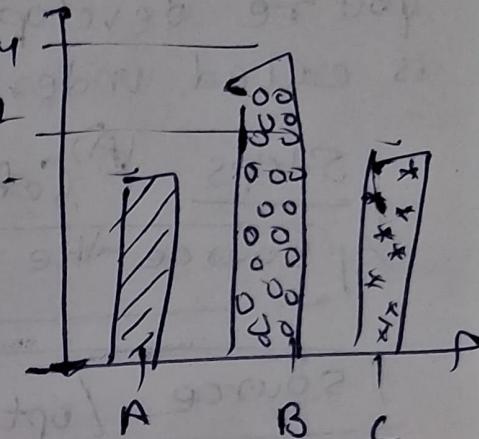
(Same operations
as line graph)

bars = plt.bar (labels, values)

bars[0].set_hatch ('//')

bars[1].set_hatch ('0')

bars[2].set_hatch ('*'*)



Patterns = ['//', '0', '*'*]

for bar in bars:

bar.set_hatch (patterns.pop())