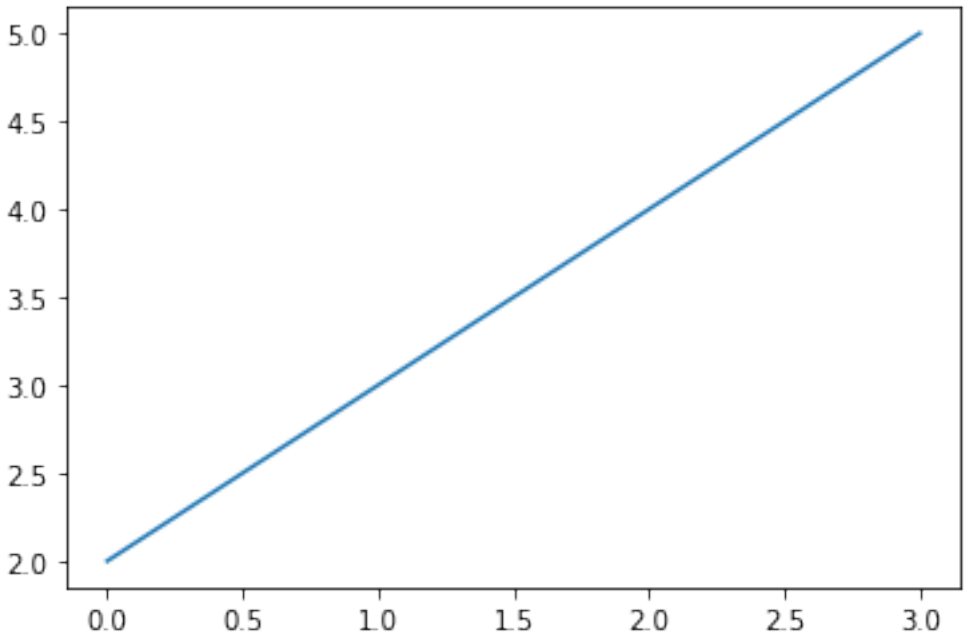
Practical 4 - matplotlib

November 19, 2019

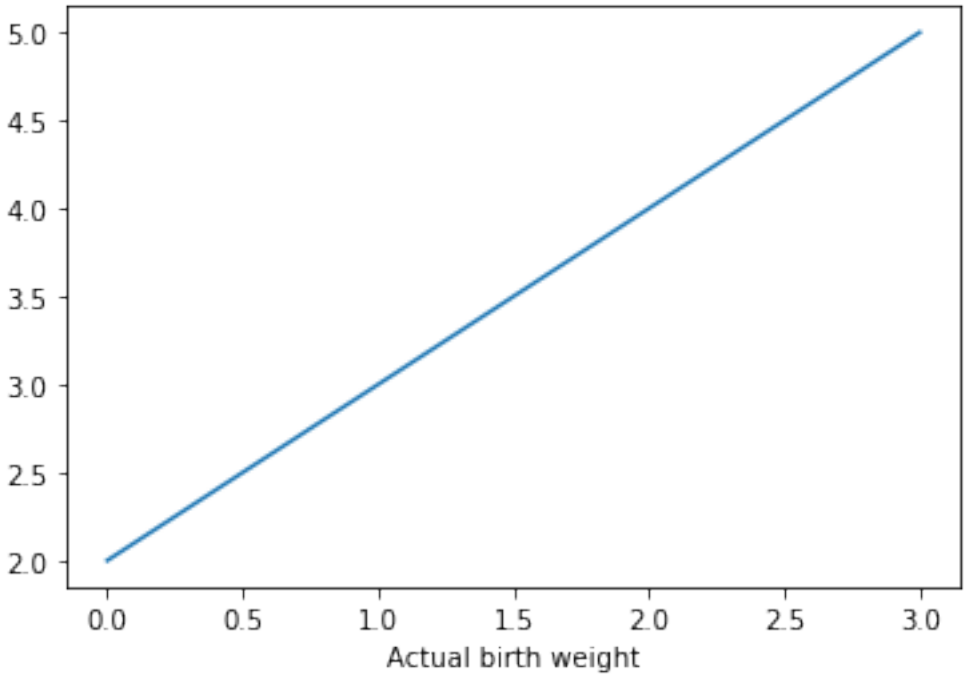
[12]:
```
import matplotlib.pyplot as plt
plt.plot([2,3,4,5])
```

[12]:
```
[<matplotlib.lines.Line2D at 0x29750e08438>]
```



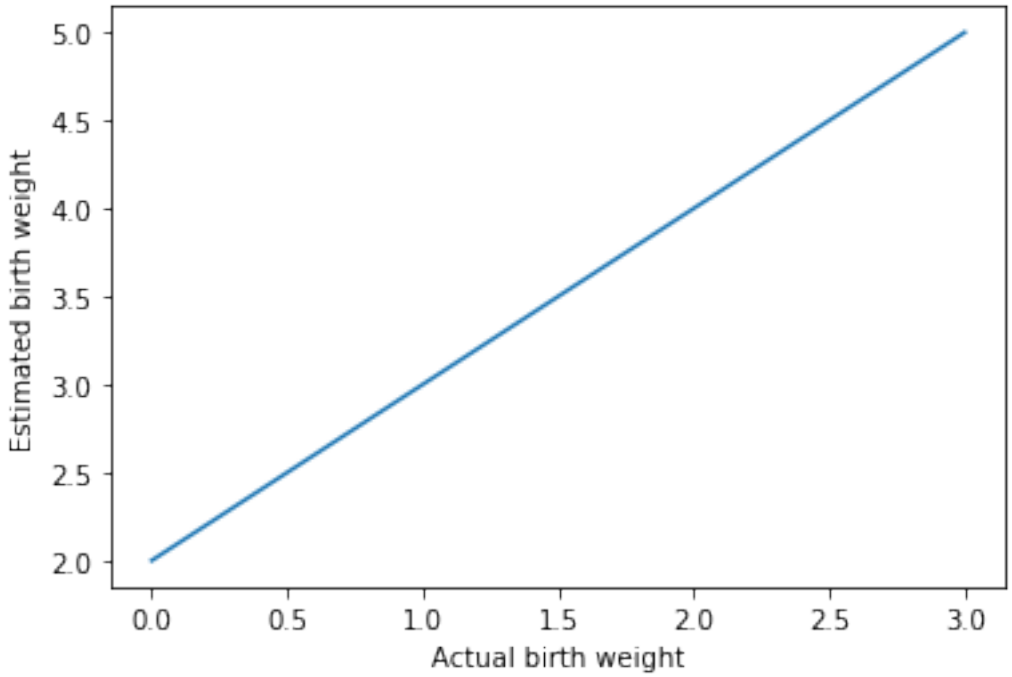
[52]:
```
plt.xlabel('Actual birth weight')
plt.plot([2,3,4,5])
```

[52]:
```
[<matplotlib.lines.Line2D at 0x29752974780>]
```



[54]:
```
plt.xlabel('Actual birth weight')
plt.ylabel('Estimated birth weight')
plt.plot([2,3,4,5])
```

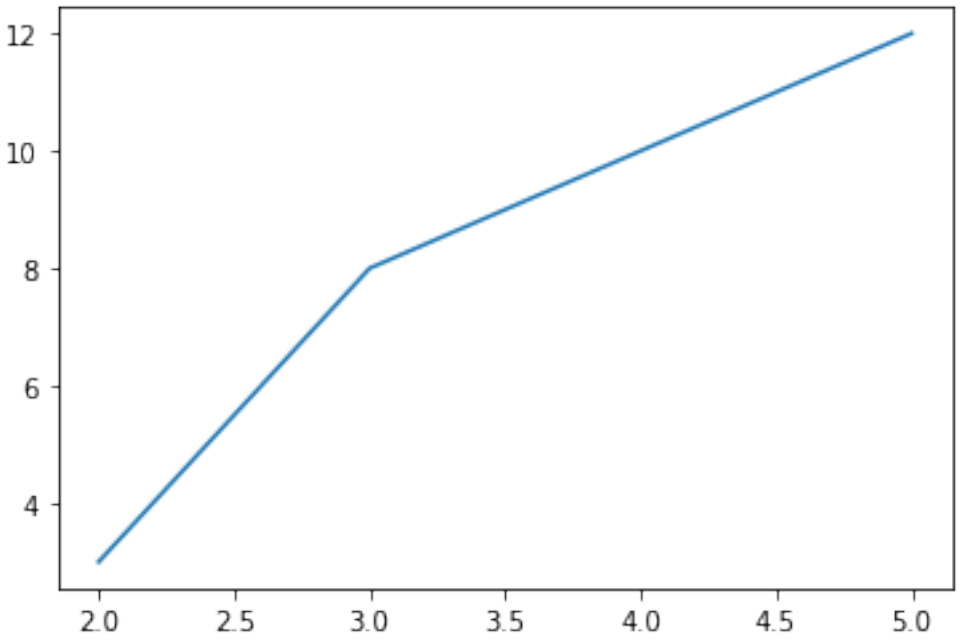
[54]:
```
[<matplotlib.lines.Line2D at 0x29753a0e550>]
```



[15]:
```
plt.show()
```

[16]:
```
plt.plot([2,3,4,5],[3,8,10,12])
```

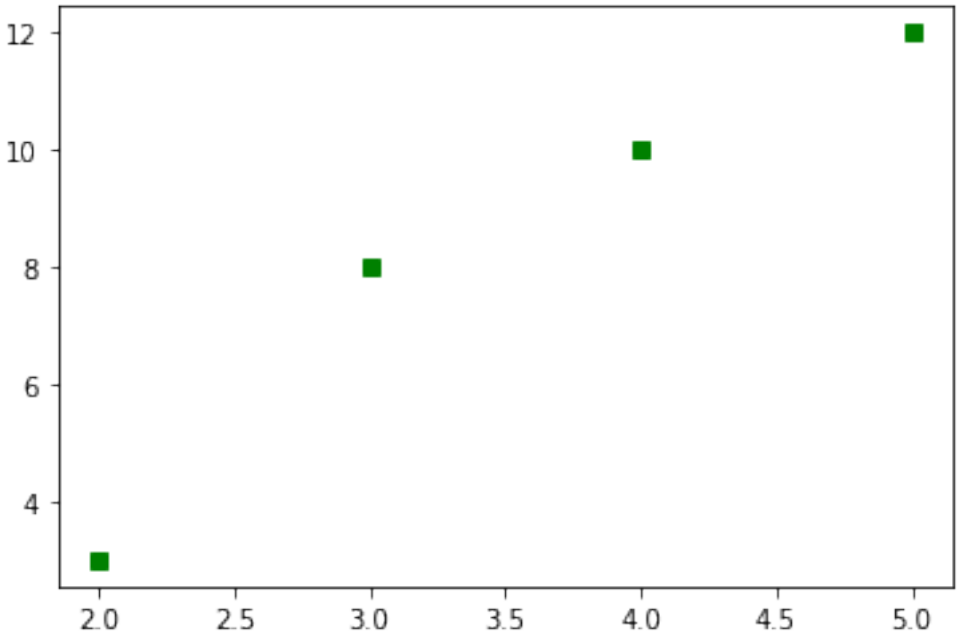
[16]:
```
[<matplotlib.lines.Line2D at 0x29750f14c50>]
```



[17]:
```
plt.show()
```

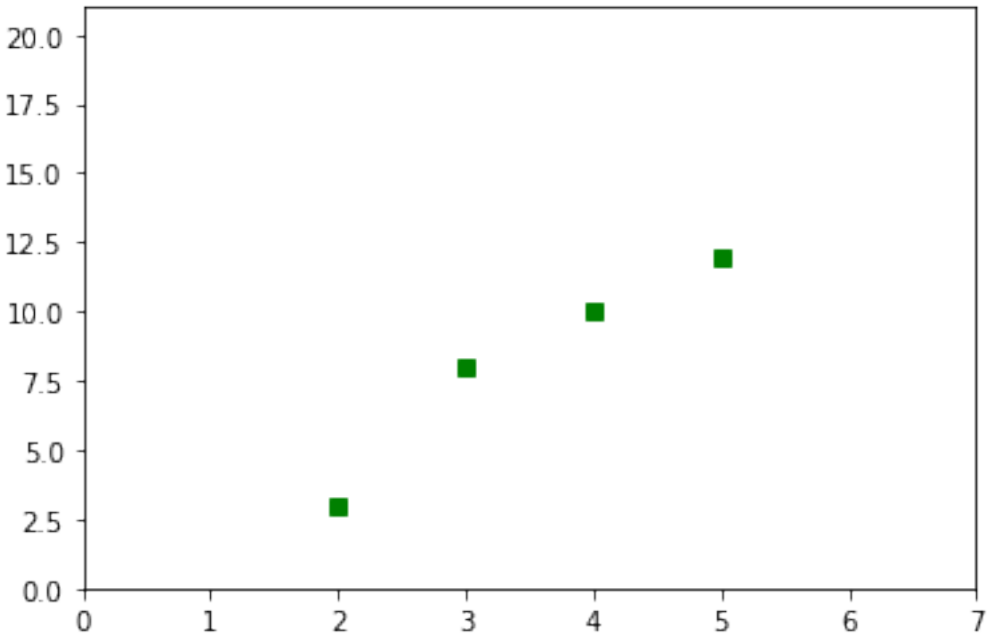
[18]:
```
plt.plot([2,3,4,5],[3,8,10,12],'gs')
```

[18]:
```
[<matplotlib.lines.Line2D at 0x29750f72f28>]
```



[22]:
```
plt.axis([0,7,0,21])
plt.plot([2,3,4,5],[3,8,10,12],'gs')
```

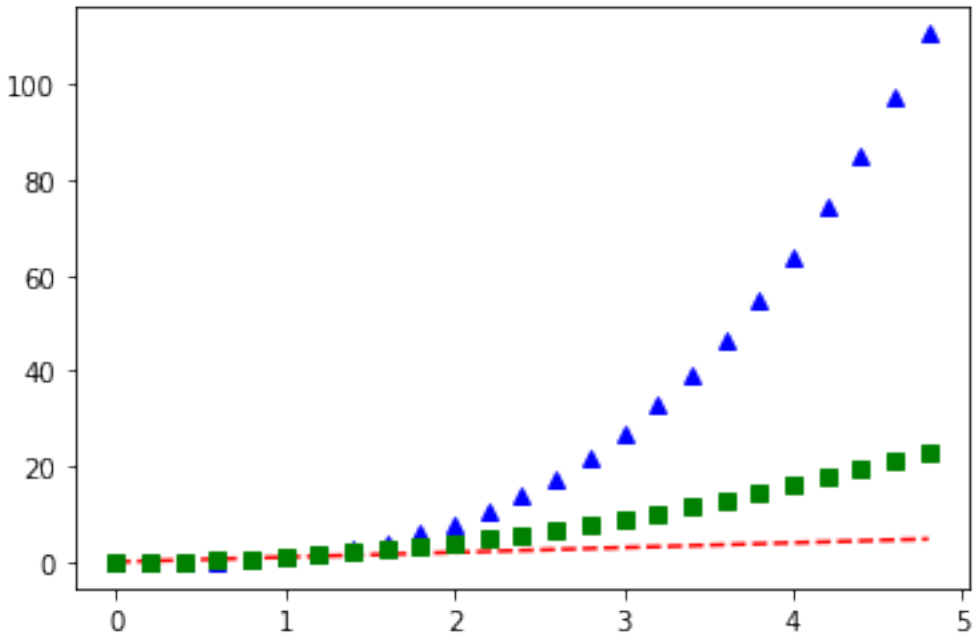
[22]:
```
[<matplotlib.lines.Line2D at 0x2975107de80>]
```



[20]:
```
plt.show()
```

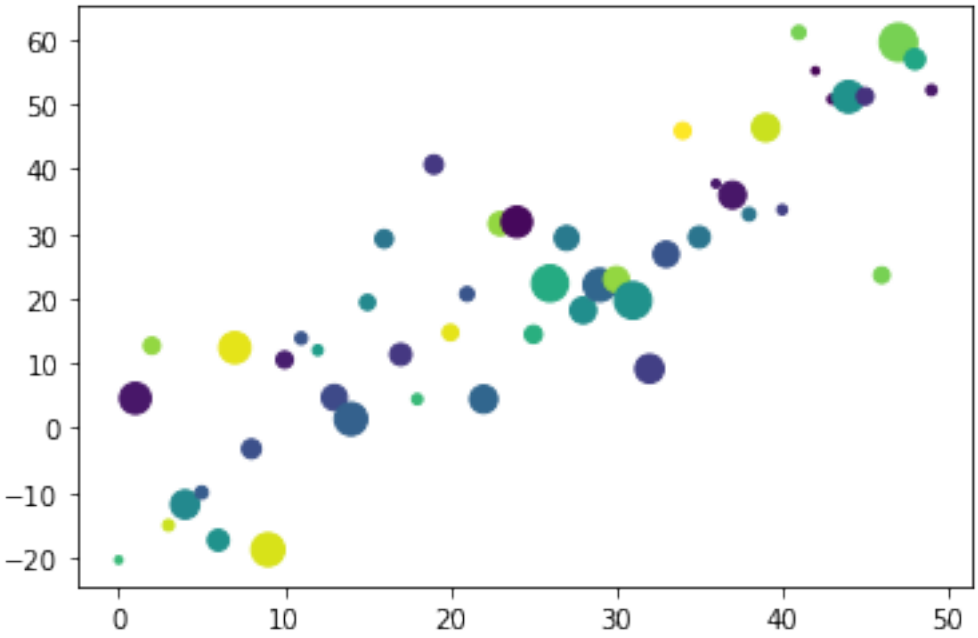
[23]:
```
import numpy as np
t=np.arange(0,5,0.2)
plt.plot(t,t,'r--',t,t**3,'b^',t,t**2,'gs')
```

[23]:
```
[<matplotlib.lines.Line2D at 0x29750fae668>,
 <matplotlib.lines.Line2D at 0x29750fae6a0>,
 <matplotlib.lines.Line2D at 0x29750fae860>]
```



[24]:
```
data={'a':np.arange(50),
'c':np.random.randint(0,50,50),
'd':np.random.randn(50)}
data['b']=data['a']+10*np.random.randn(50)
data['d']=np.abs(data['d'])*100
plt.scatter('a','b',c='c',s='d',data=data)
```

[24]:
```
<matplotlib.collections.PathCollection at 0x2975109e7b8>
```



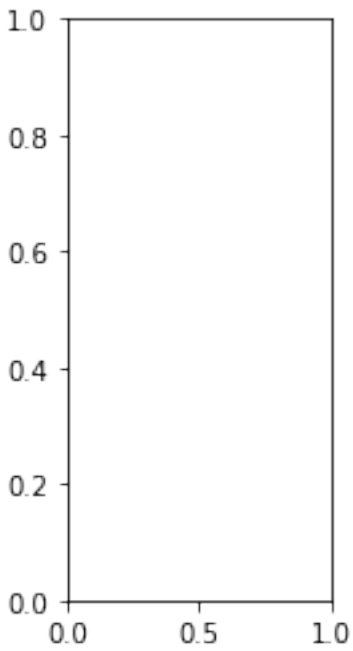
[26]:
```
names=["Dingos","Wild Cats","Tigers"]
values=[1,11,111]
plt.figure(1,figsize=(9,3))
```

[26]:
```
<Figure size 648x216 with 0 Axes>
```

```
<Figure size 648x216 with 0 Axes>
```

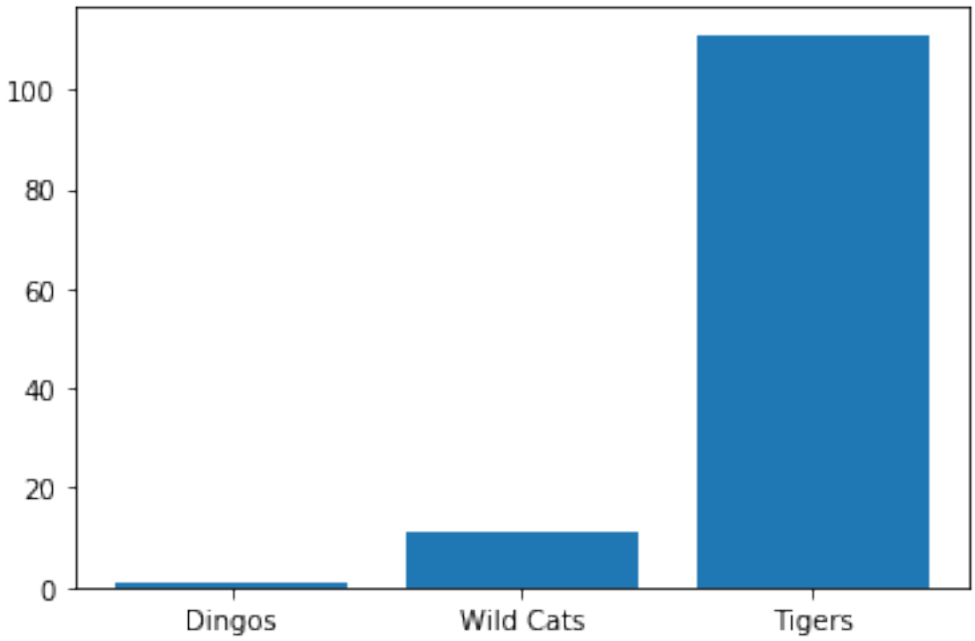
[27]:
```
plt.subplot(131)
```

[27]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x297510e6898>
```



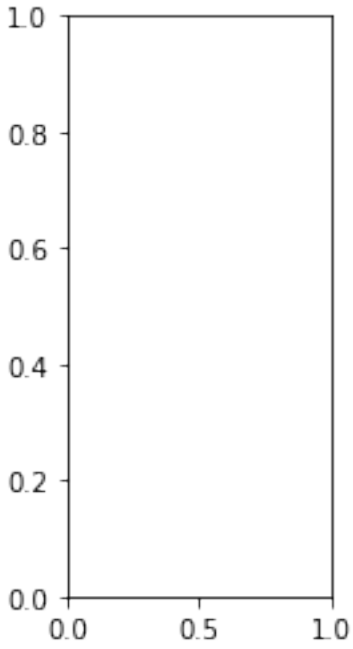
[28]:
```
plt.bar(names,values)
```

[28]:
```
<BarContainer object of 3 artists>
```



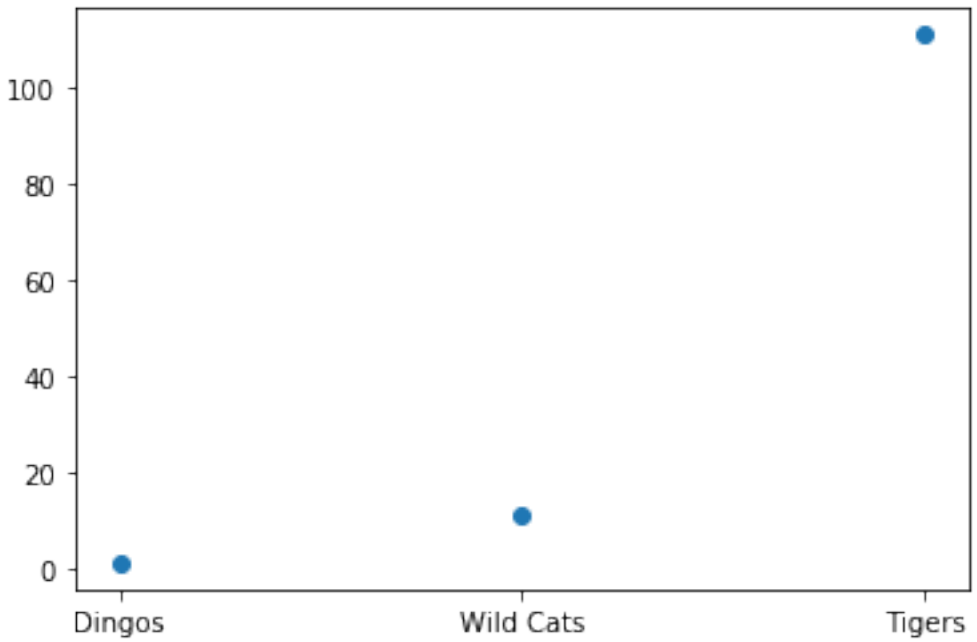
[29]:
```
plt.subplot(132)
```

[29]: `<matplotlib.axes._subplots.AxesSubplot at 0x29752155eb8>`



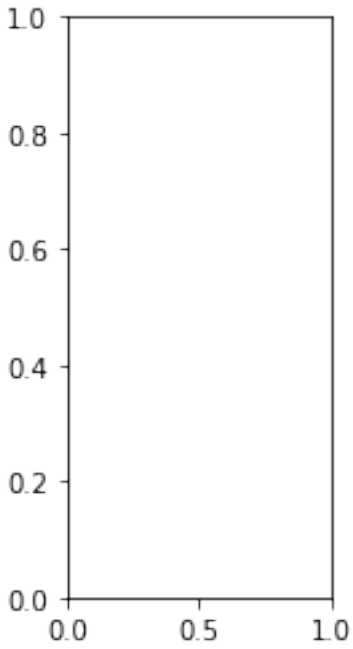
[31]:
```
plt.scatter(names,values)
```

[31]: `<matplotlib.collections.PathCollection at 0x29752113f28>`



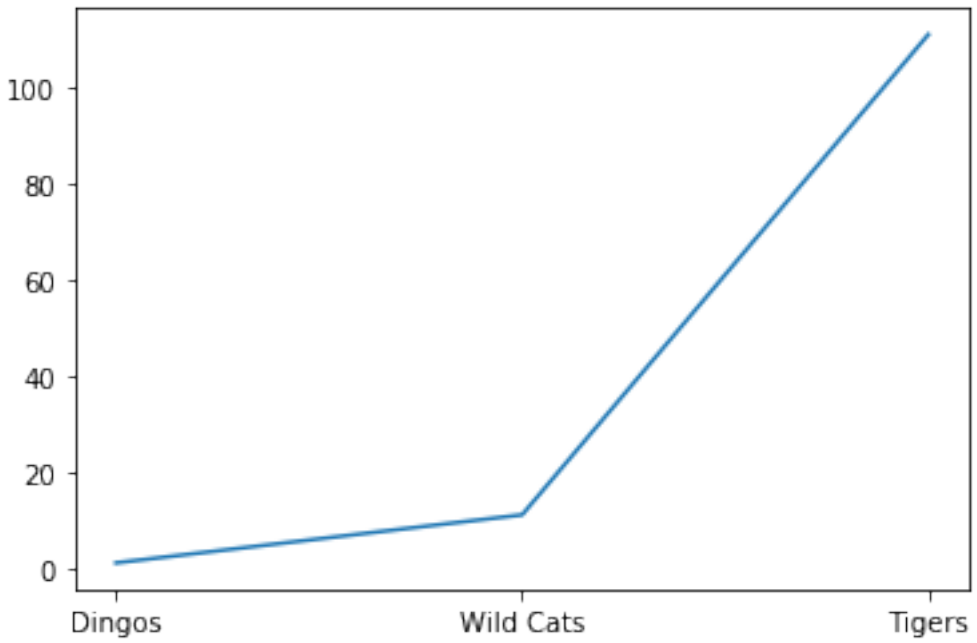
[32]:
```
plt.subplot(133)
```

[32]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x29752245550>
```



[33]:
```
plt.plot(names,values)
```

[33]:
```
[<matplotlib.lines.Line2D at 0x297522ca240>]
```



[34]:
```
plt.suptitle('Varsity')
```

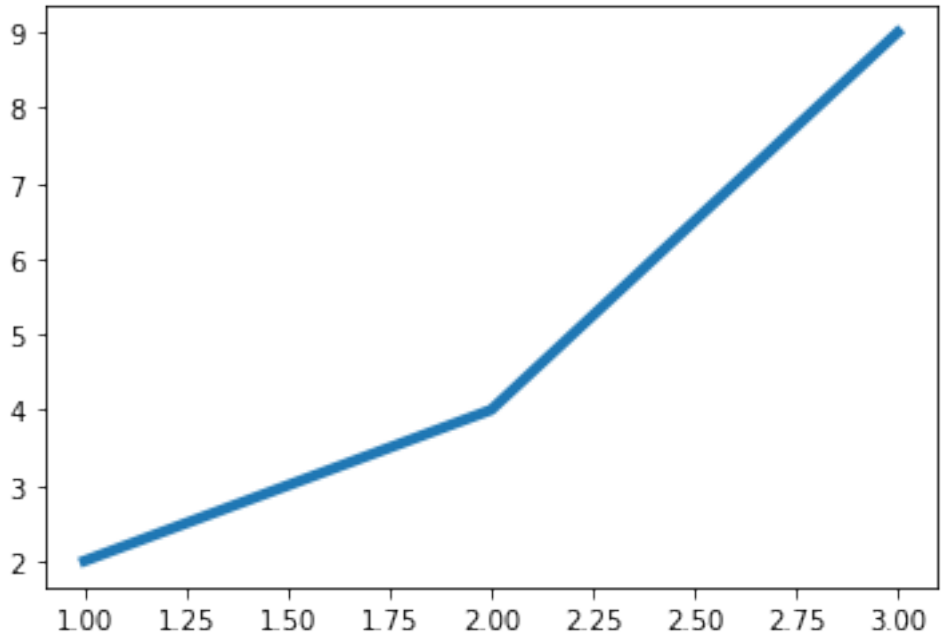
[34]:
```
Text(0.5, 0.98, 'Varsity')
```

```
<Figure size 432x288 with 0 Axes>
```

[36]:
```
plt.show()
```

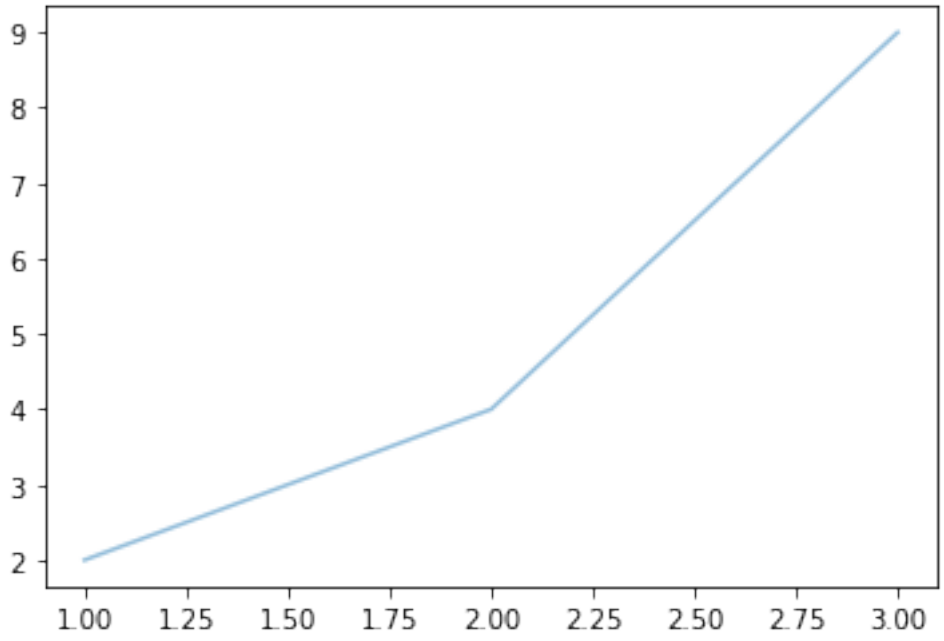
[37]:
```
plt.plot([1,2,3],[2,4,9],linewidth=4.0)
```

[37]:
```
[<matplotlib.lines.Line2D at 0x297523253c8>]
```



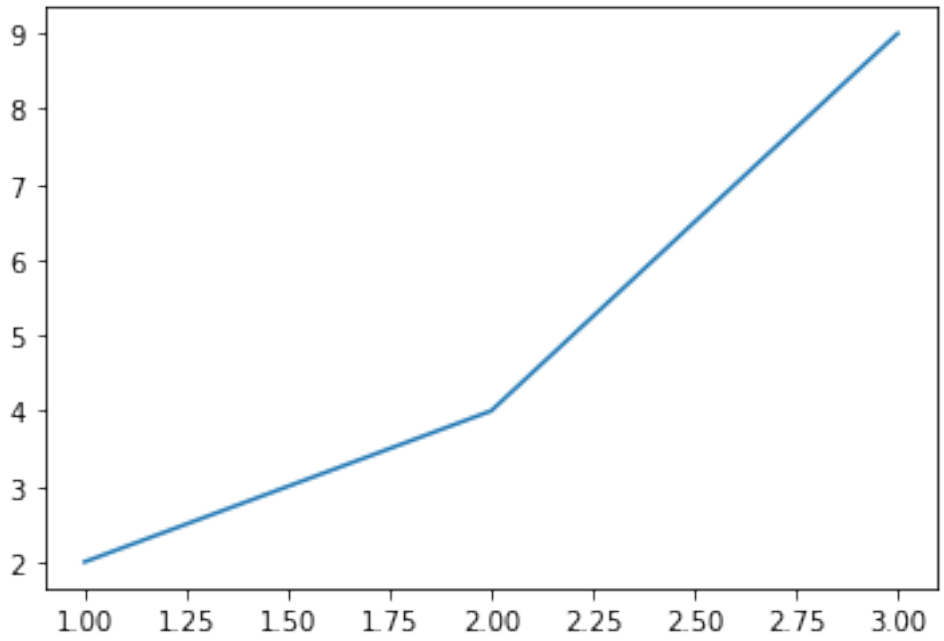
[38]:
```
plt.plot([1,2,3],[2,4,9],alpha=5.5)
```

[38]:
```
[<matplotlib.lines.Line2D at 0x29752382f60>]
```



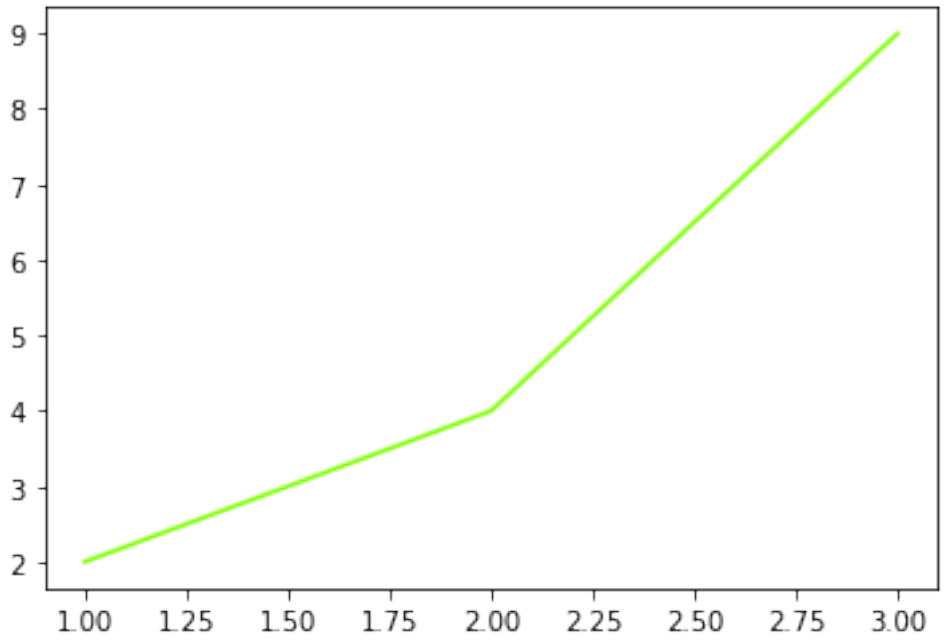
[39]:
```
plt.plot([1,2,3],[2,4,9],antialiased=True)
```

[39]:
```
[<matplotlib.lines.Line2D at 0x297523efba8>]
```



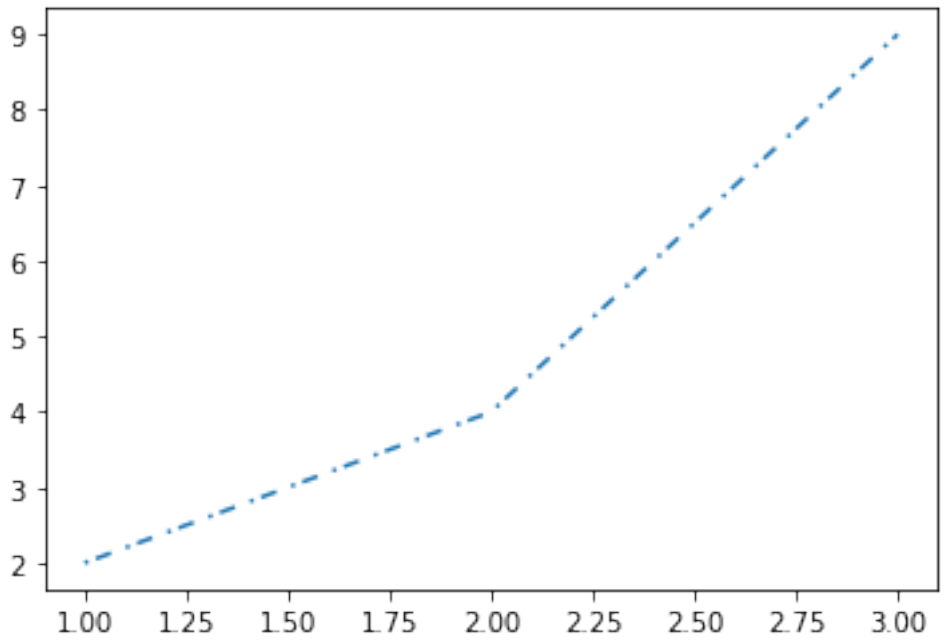
[40]:
```
plt.plot([1,2,3],[2,4,9],color='Chartreuse')
```

[40]: `[<matplotlib.lines.Line2D at 0x2975245e828>]`



[41]:
```
plt.plot([1,2,3],[2,4,9],dashes=[1,2,4,4])
```

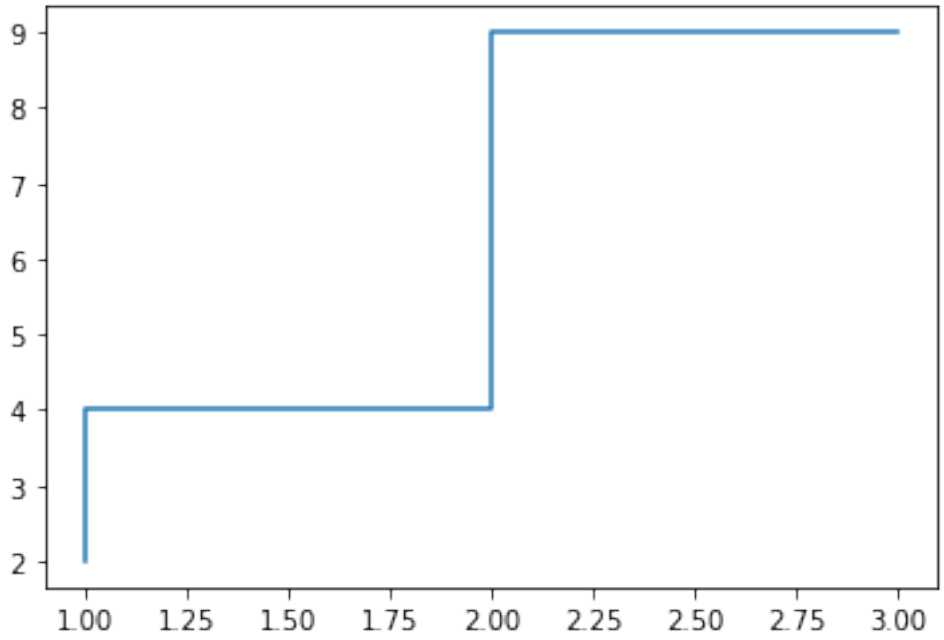
[41]: `[<matplotlib.lines.Line2D at 0x297524cb390>]`



[42]:
```
plt.plot([1,2,3],[2,4,9],linestyle='steps')
```

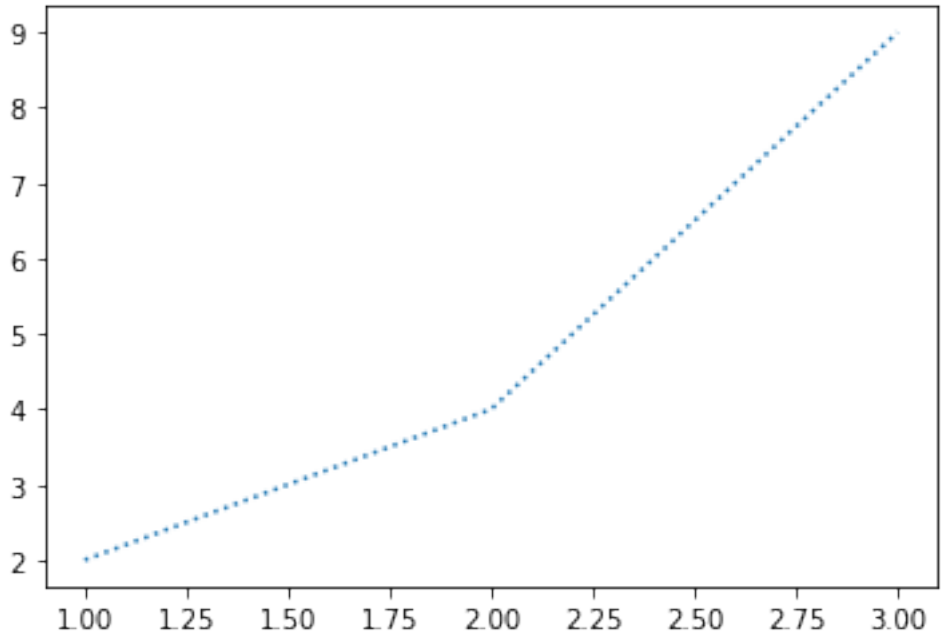
```
C:\Users\Juhi\Anaconda3\lib\site-packages\ipykernel_launcher.py:1:
MatplotlibDeprecationWarning: Passing the drawstyle with the linestyle as a
single string is deprecated since Matplotlib 3.1 and support will be removed in
3.3; please pass the drawstyle separately using the drawstyle keyword argument
to Line2D or set_drawstyle() method (or ds/set_ds()).
  """Entry point for launching an IPython kernel.
```

[42]:
```
[<matplotlib.lines.Line2D at 0x2975252ee80>]
```



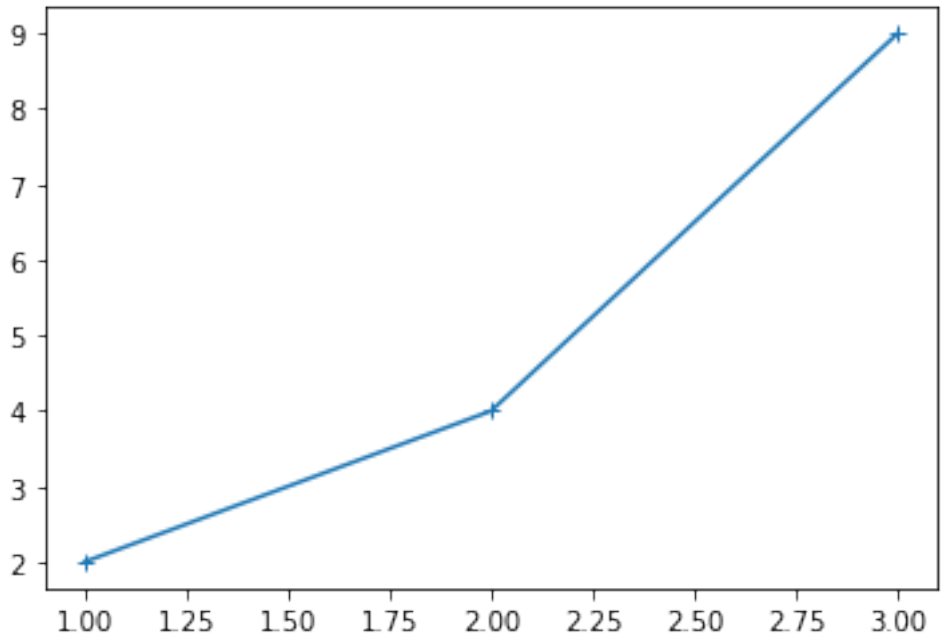
[43]:
```
plt.plot([1,2,3],[2,4,9],linestyle=':')
```

[43]:
```
[<matplotlib.lines.Line2D at 0x2975259bb00>]
```



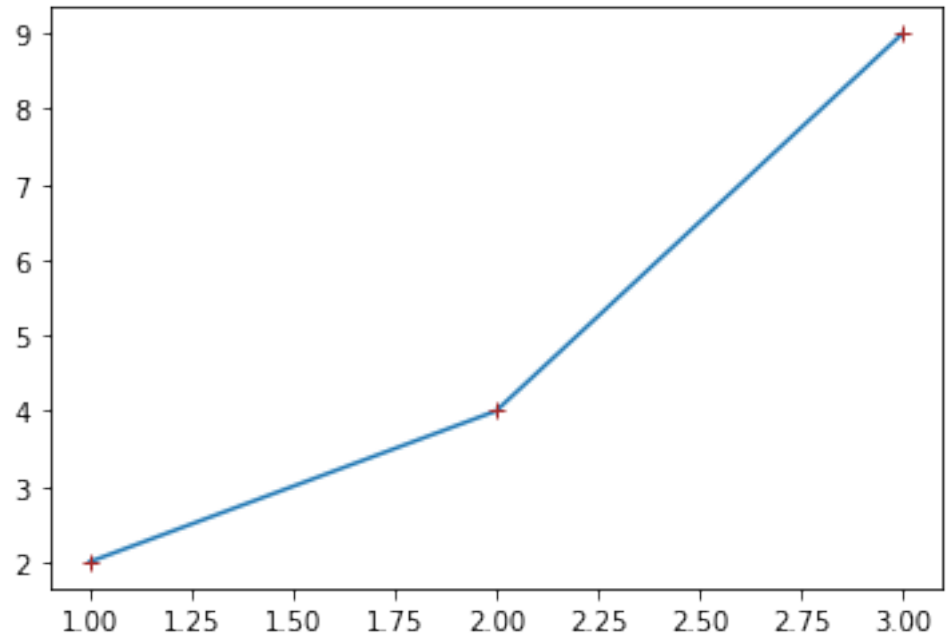
[44]:
```
plt.plot([1,2,3],[2,4,9],marker='+')
```

[44]:
```
[<matplotlib.lines.Line2D at 0x2975260a6d8>]
```



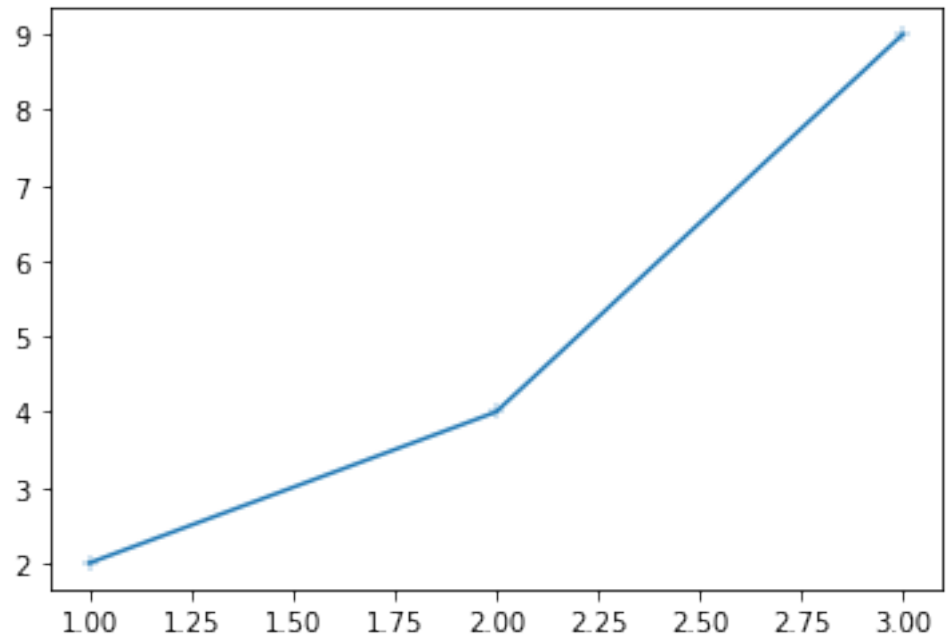
[45]:
```
plt.plot([1,2,3],[2,4,9],marker='+',markeredgecolor='brown')
```

[45]: `[<matplotlib.lines.Line2D at 0x2975267e2e8>]`



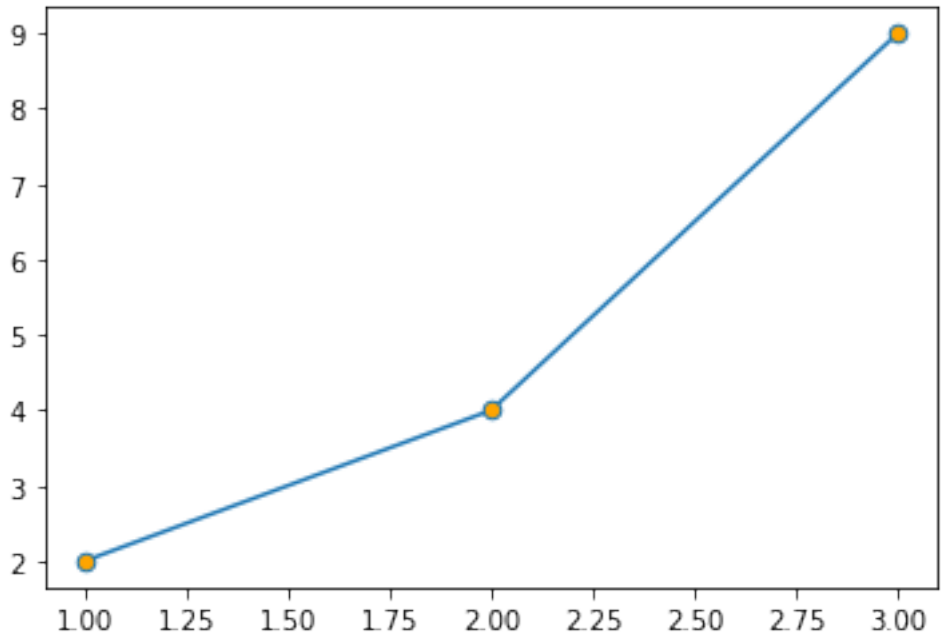
[46]:
```
plt.plot([1,2,3],[2,4,9],marker='+',markeredgewidth=0.4)
```

[46]: `[<matplotlib.lines.Line2D at 0x297526e5e10>]`



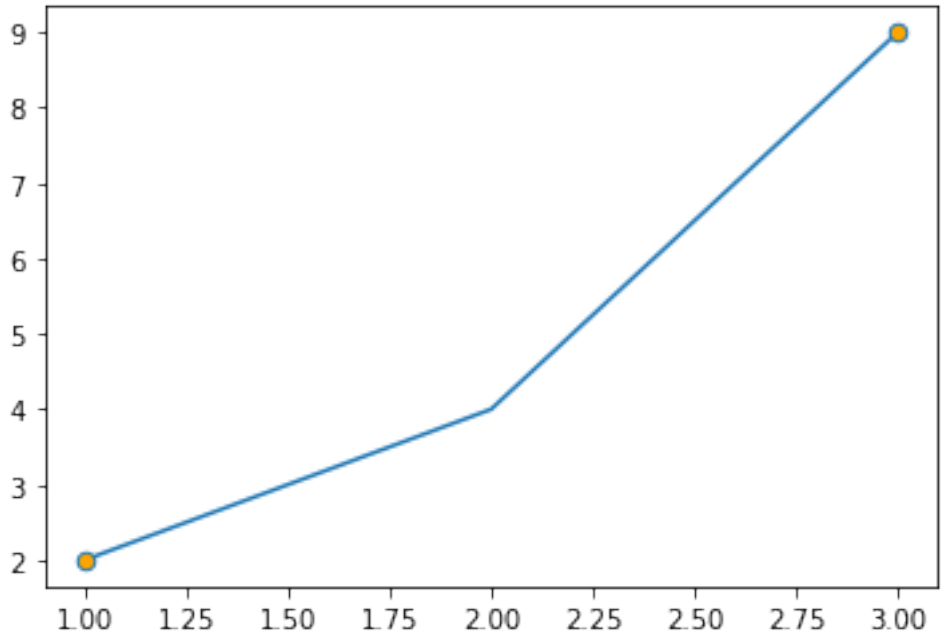
[47]:
```
plt.plot([1,2,3],[2,4,9],marker='.',markerfacecolor='orange',markersize=13.0)
```

[47]:
```
[<matplotlib.lines.Line2D at 0x29752753ba8>]
```



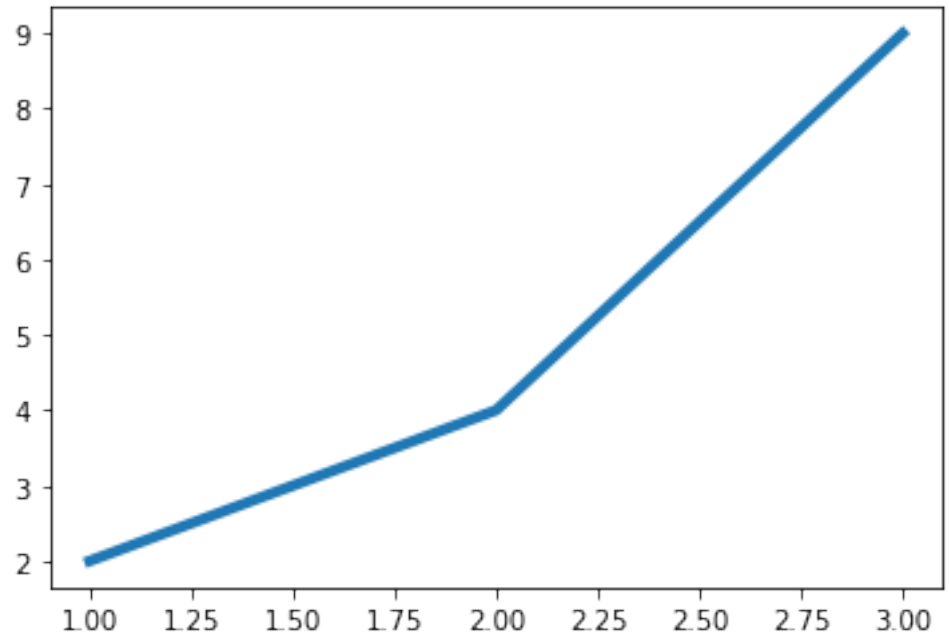
[48]:
```
    plt.plot([1,2,3],[2,4,9],marker='.',markerfacecolor='orange',markersize=13.
↪0,markevery=2)
```

[48]:
```
[<matplotlib.lines.Line2D at 0x297527c46d8>]
```



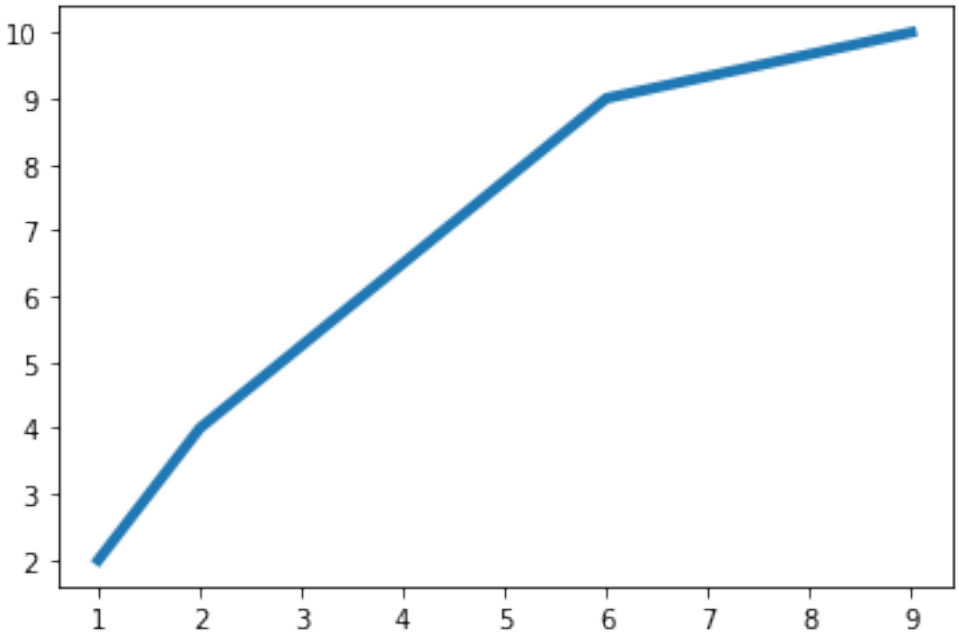
[49]:
```
plt.plot([1,2,3],[2,4,9],zorder=1,linewidth=4)
```

[49]:
```
[<matplotlib.lines.Line2D at 0x2975282d198>]
```



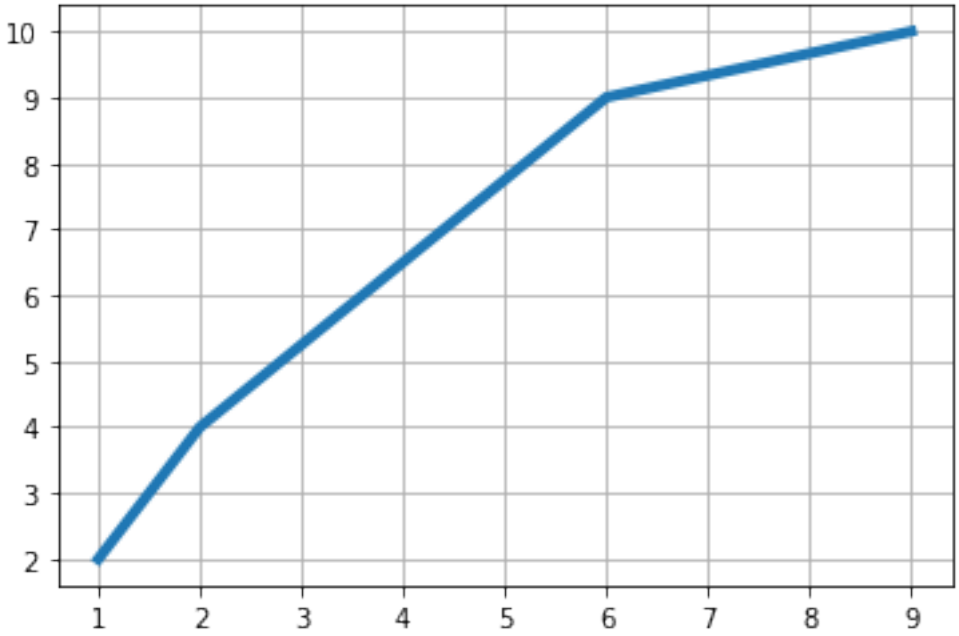
[50]:
```
plt.plot([1,2,6,9],[2,4,9,10],zorder=2,linewidth=4)
```

[50]:
```
[<matplotlib.lines.Line2D at 0x2975288bf60>]
```



[51]:
```
plt.grid(True)
plt.plot([1,2,6,9],[2,4,9,10],zorder=2,linewidth=4)
```

[51]:
```
[<matplotlib.lines.Line2D at 0x297528f9f28>]
```



[ ]: