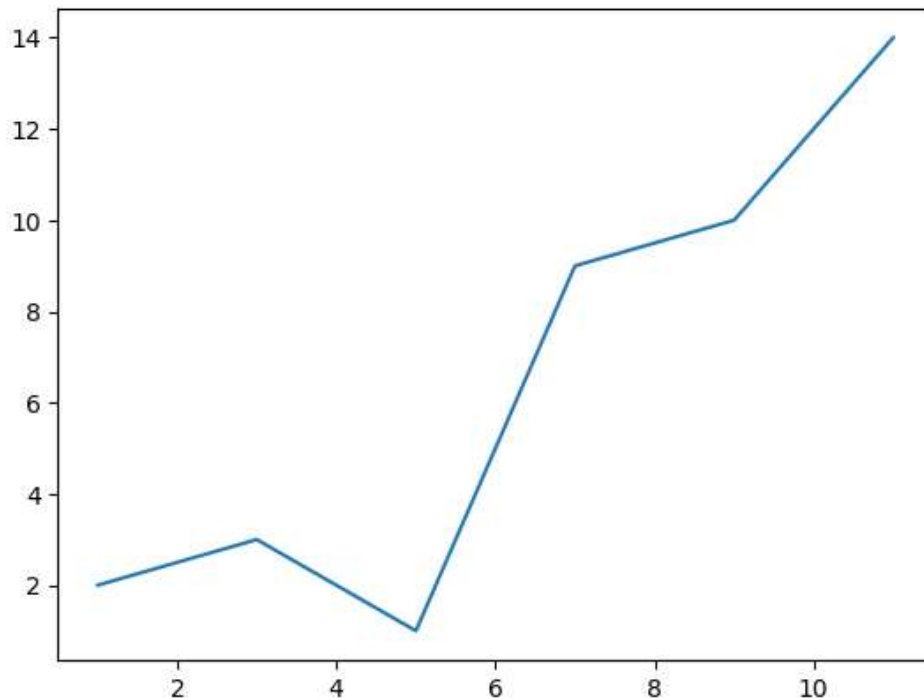Task 1 Run and document the effect these settings have on pyplot's graph presentation ● plt.xlim(0,50) ●
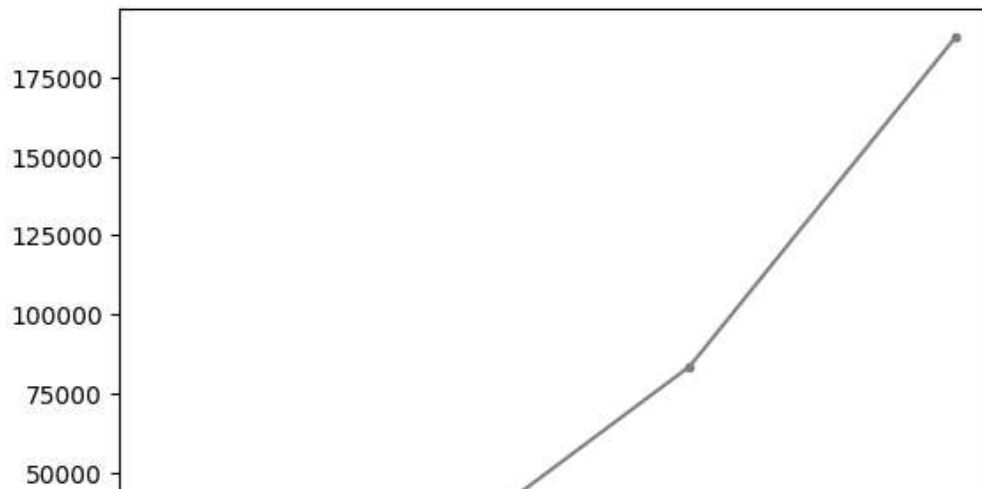plt.ylim(0,50) ● plt.grid()

```
import matplotlib.pyplot as plt
x=[1,3,5,7,9,11]
y=[2,3,1,9,10,14]

plt.plot(x,y)
plt.show()
```


Double-click (or enter) to edit

```
import numpy as np
def h(x):
  y=[]
  for i in range (len(x)):
    function= 3*x[i]**2+2
    y.append(function)
  return y
a=np.linspace(1,250,num=4)
b=h(a)
plt.plot(a,b, color="grey", marker=".")
plt.show()
```

```
x=np.linspace(4,-5,20)
y=5*x**3+2*x-1

plt.plot(x,y,color="green")

m=np.linspace(-5,8,20)
n=-2*m**3+100

plt.plot(m,n,color="blue")

p=np.linspace(-4,11,20)
q=2*np.pi*x+20

plt.plot(p,q,color="red")

plt.show()
```
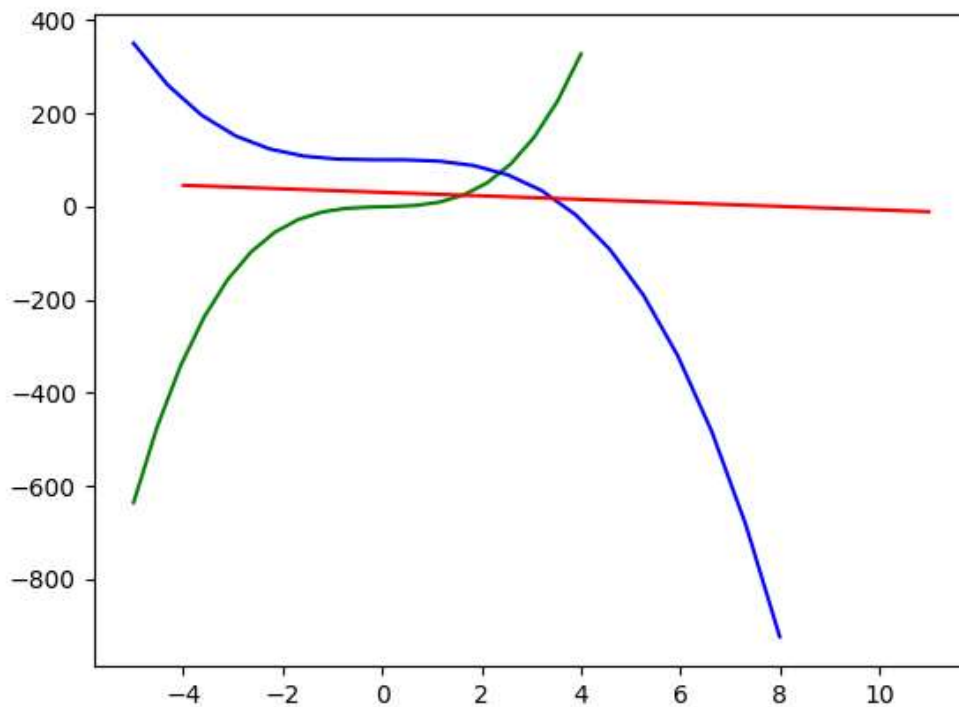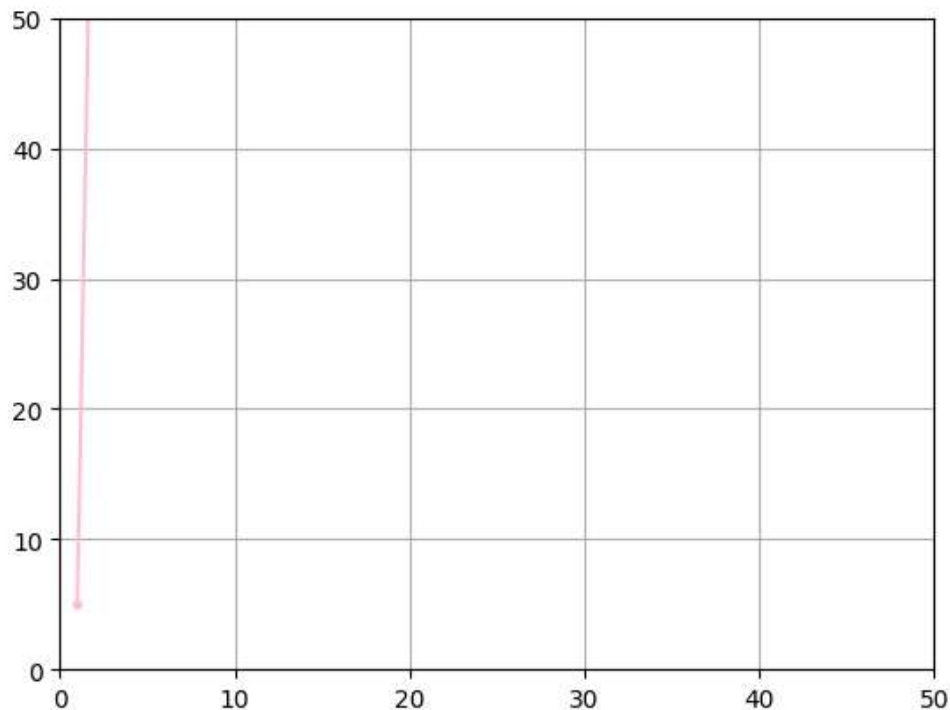


```
def e(x):
    y=[]
```

```python
    for i in range(len(x)):
      function= 3*x[i]**2+2
      y.append(function)
    return y
x= np.linspace(1,200,num=10)
y=e(x)
plt.plot(x,y,color="pink",marker=".")
plt.xlim(0,50)
plt.ylim(0,50)
plt.grid()
plt.show()
```
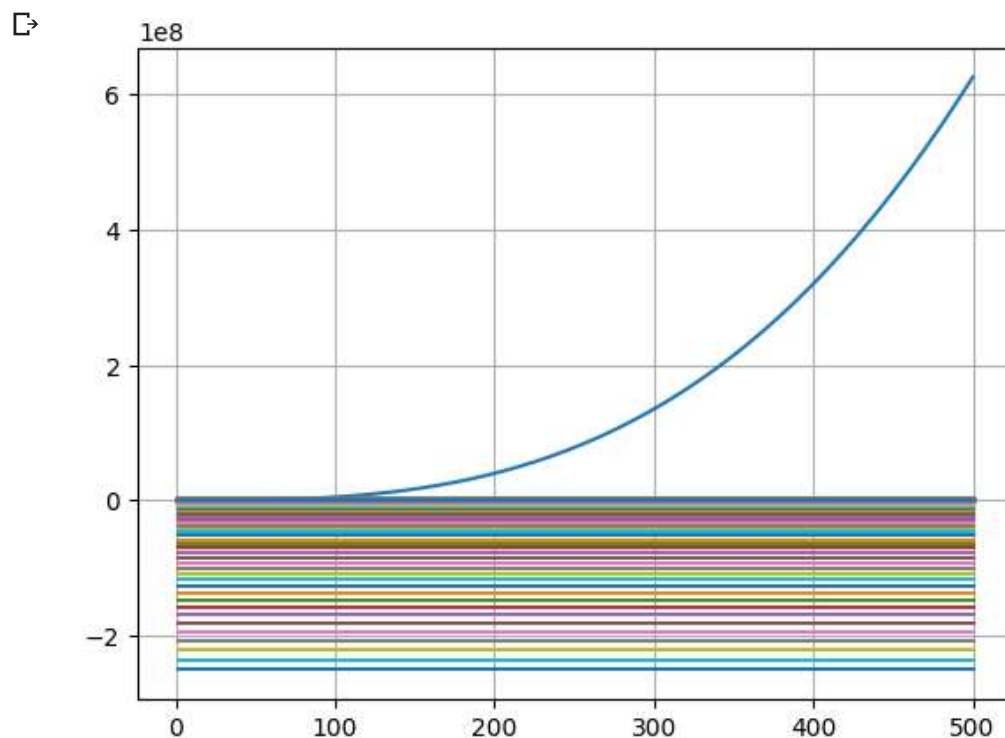


```python
def e(x):
    y=[]
    for i in range (len(x)):
      function =5*x[i]**3+2*x[i]-1
      y.append(function)
    return y
def l(x):
    z=[]
    for i in range (len(x)):
     function =-2*x**3-x**2+100
     z.append(function)

    return z
def z(x):
    a=[]
    for i in range (len(x)):
      function = 2*3.14*x+20+100
      a.append(function)
    return a
x =np.linspace(1,500,num=50)
y=l(x)
a=z(x)
plt.plot(x,e(x))
```

```
plt.plot(x,l(x))
plt.plot(x,z(x))


plt.grid()
plt.show()
```

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