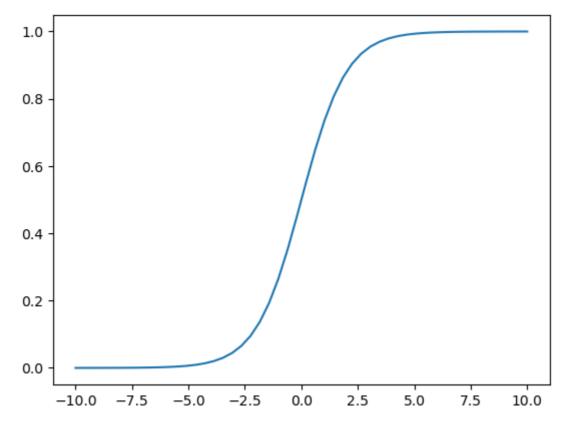
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```
import numpy as np
 In [1]:
          import matplotlib.pyplot as plt
         def linear(x):
 In [4]:
             return x
         x=np.linspace(-10,10)
 In [5]:
          plt.plot(x,linear(x))
         plt.show()
            10.0
             7.5
             5.0
             2.5
             0.0
           -2.5
           -5.0
           -7.5
          -10.0
                  -10.0
                           -7.5
                                   -5.0
                                           -2.5
                                                    0.0
                                                            2.5
                                                                    5.0
                                                                            7.5
                                                                                    10.0
 In [6]:
         def sigmoid(x):
              return (1/(1+np.exp(-x)))
         x=np.linspace(-10,10)
In [24]:
          plt.plot(x,sigmoid(x))
```

plt.show()

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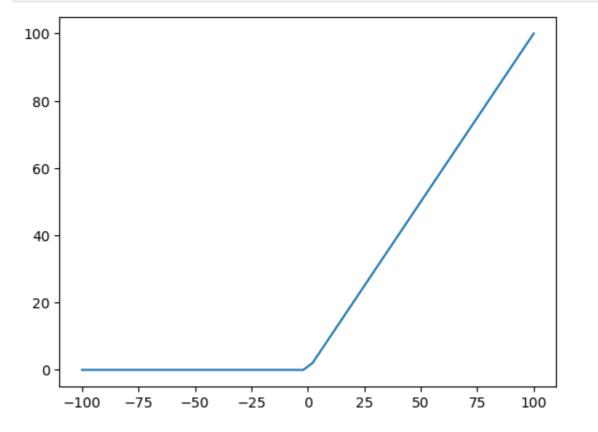
```
def tanh(x):
In [12]:
              return ((2/(1+np.exp(-2*x)))-1)
         x=np.linspace(-10,10)
In [35]:
          plt.plot(x,tanh(x))
          plt.show()
            1.00
            0.75
            0.50
            0.25
            0.00
          -0.25
          -0.50
          -0.75
          -1.00
                                           -2.5
                                                            2.5
                                                                    5.0
                                                                            7.5
                                   -5.0
                  -10.0
                           -7.5
                                                    0.0
                                                                                    10.0
```

```
In [31]: def relu(x):
    x1=[]
    for i in x:
        if i<0:</pre>
```

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```
x1.append(0)
else:
    x1.append(i)
return x1
```

```
In [32]: x=np.linspace(-100,100)
   plt.plot(x,relu(x))
   plt.show()
```



In [20]: tanh(1)

Out[20]: 0.7615941559557646

In []: