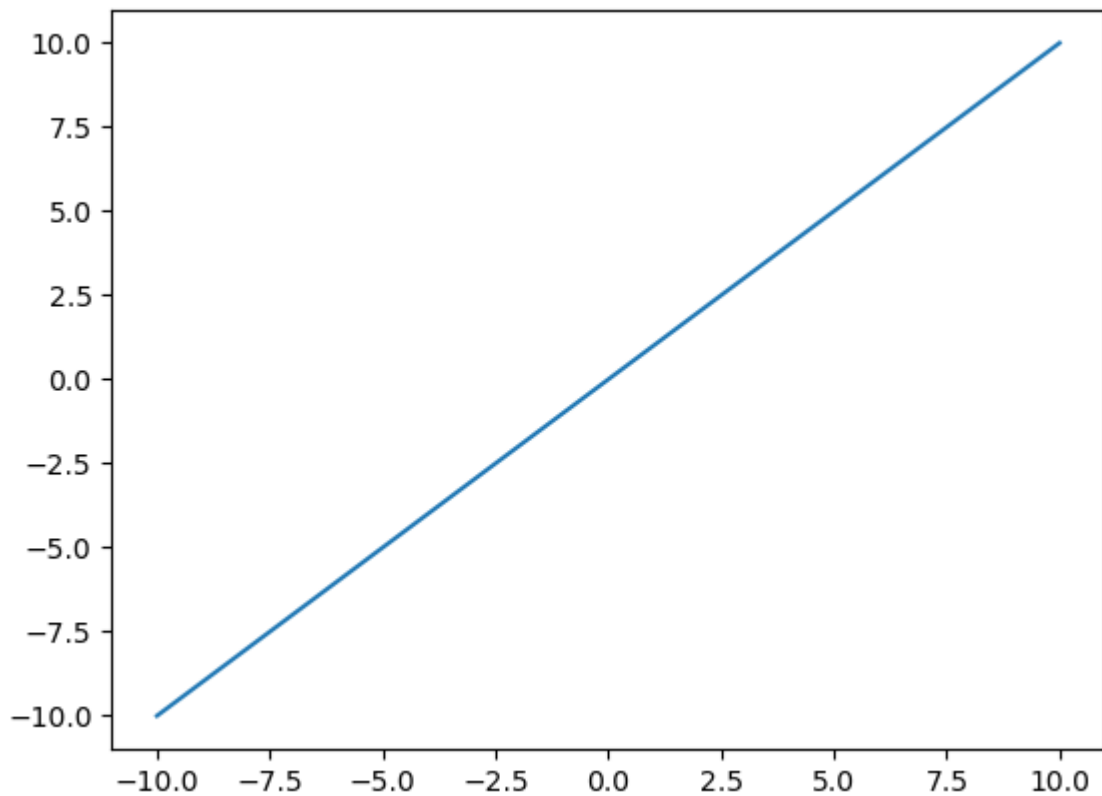In [1]:
```python
import numpy as np
import matplotlib.pyplot as plt
```

In [4]:
```python
def linear(x):
    return x
```
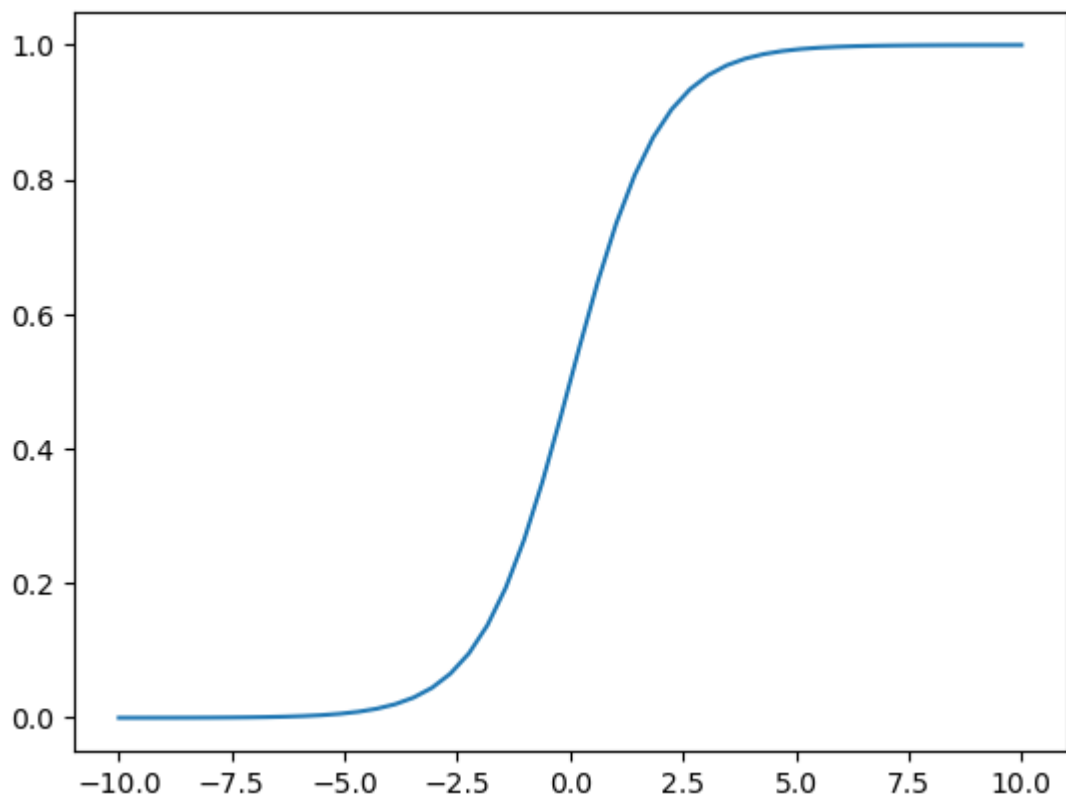
In [5]:
```python
x=np.linspace(-10,10)
plt.plot(x,linear(x))
plt.show()
```
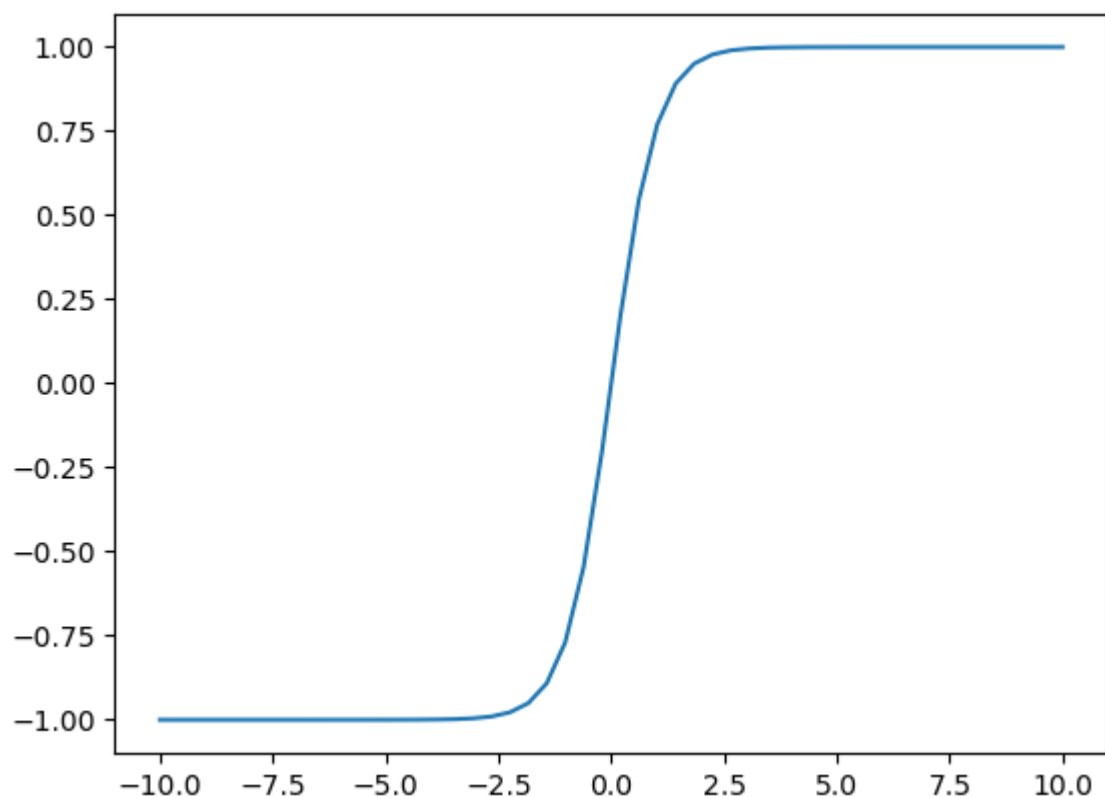

In [6]:
```python
def sigmoid(x):
    return (1/(1+np.exp(-x)))
```

In [24]:
```python
x=np.linspace(-10,10)
plt.plot(x,sigmoid(x))
plt.show()
```

```
In [12]:  def tanh(x):
              return ((2/(1+np.exp(-2*x)))-1)
```

```
In [35]:  x=np.linspace(-10,10)
          plt.plot(x,tanh(x))
          plt.show()
```
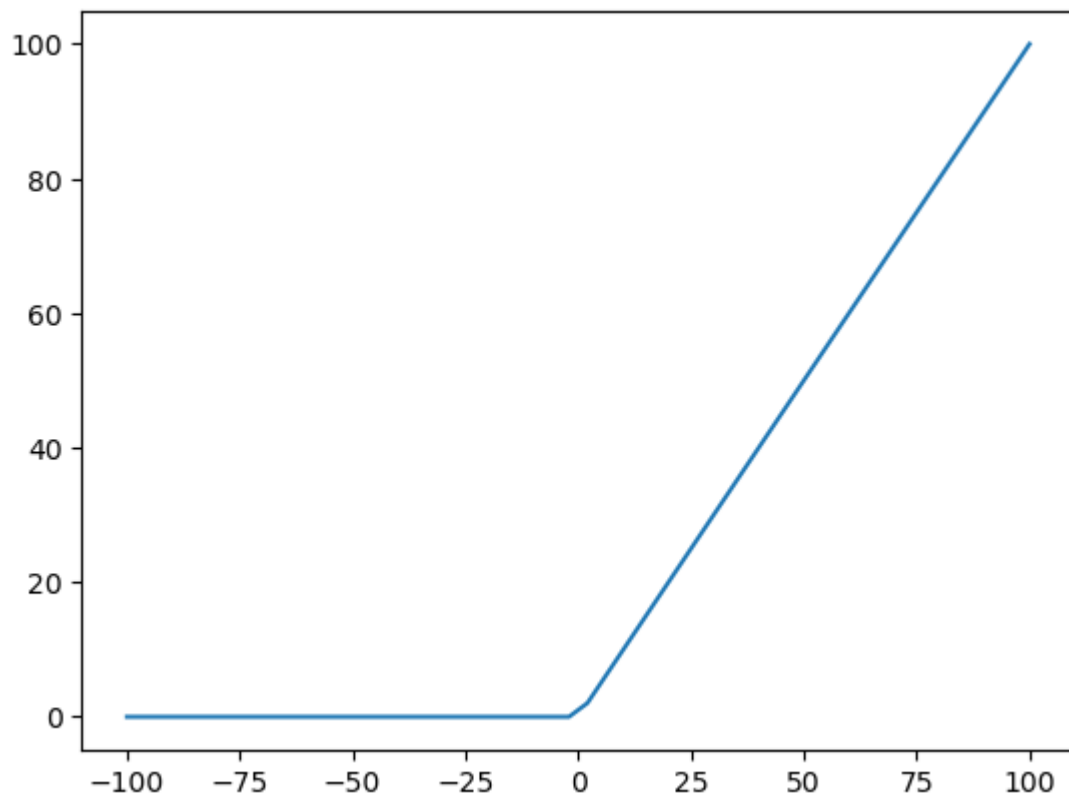


```
In [31]:  def relu(x):
              x1=[]
              for i in x:
                  if i<0:
```

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

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


In [20]:
```python
tanh(1)
```

Out[20]: 0.7615941559557646

In [ ]: