```python
import matplotlib.pyplot as plt
```

```python
x = []
for i in range(-10,11):
  x.append(i)
x
```

```
[-10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```python
#linear y=f(x)=x

y=x
plt.plot(x,y)
```
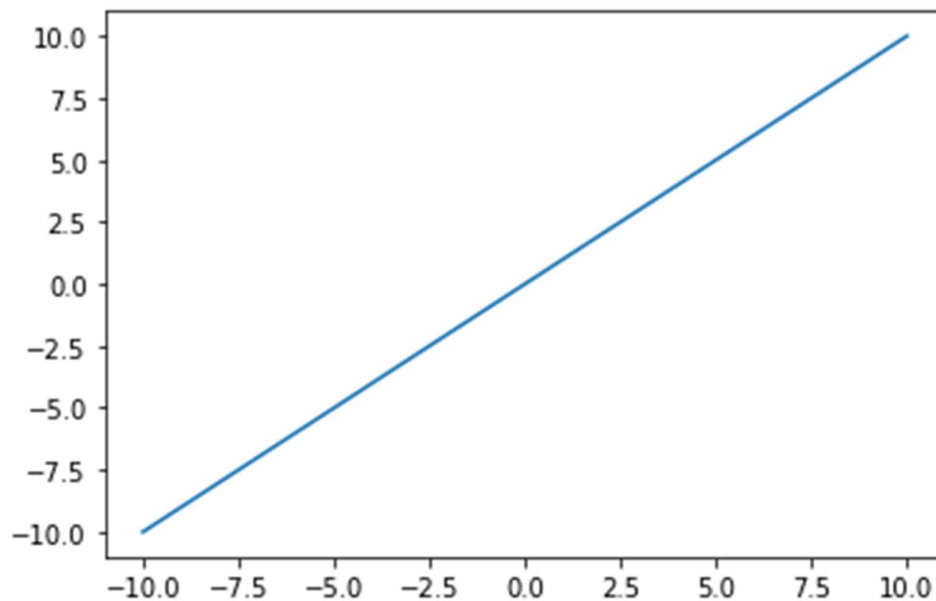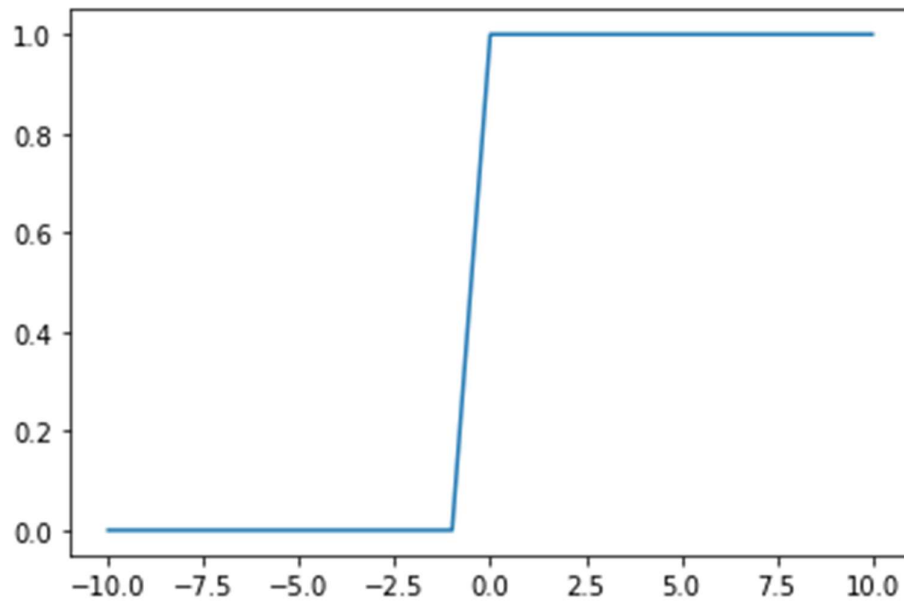
```
[<matplotlib.lines.Line2D at 0x7f10931df610>]
```

```python
# bilinear  y= {0 if x<0 , 1 if x>=0} ie theta is 0
y=[]
for i in x:
  if i<0:
    y.append(0)
  else:
    y.append(1)
plt.plot(x,y)
```
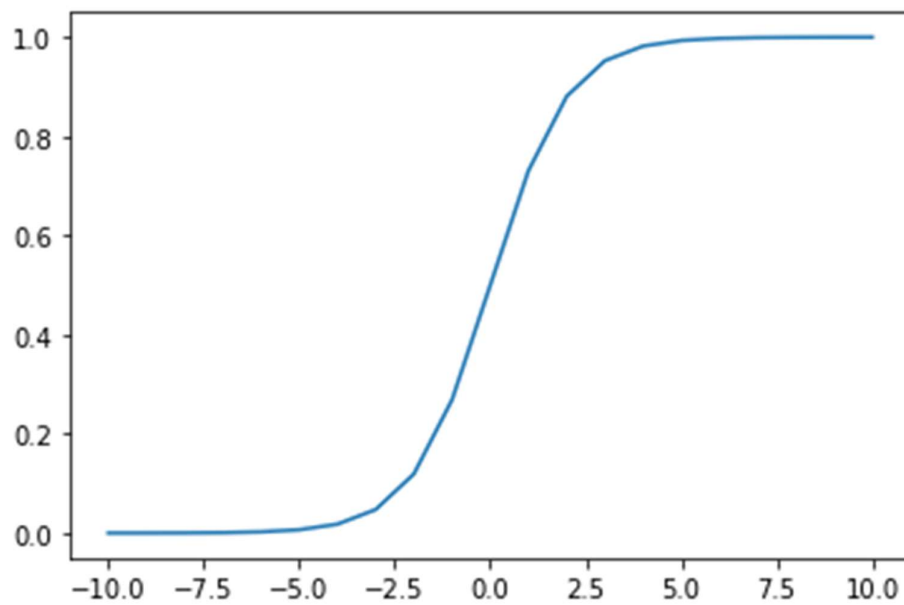
```
[<matplotlib.lines.Line2D at 0x7f1092c33ed0>]
```

```python
#binary sigmoidal
import math
y=[]
for i in x:
    v = 1/(1+math.exp(-i)) #sigma =1
    y.append(v)
print(y)
plt.plot(x,y)
```

```python
#biploar sigmoid
y=[]
```
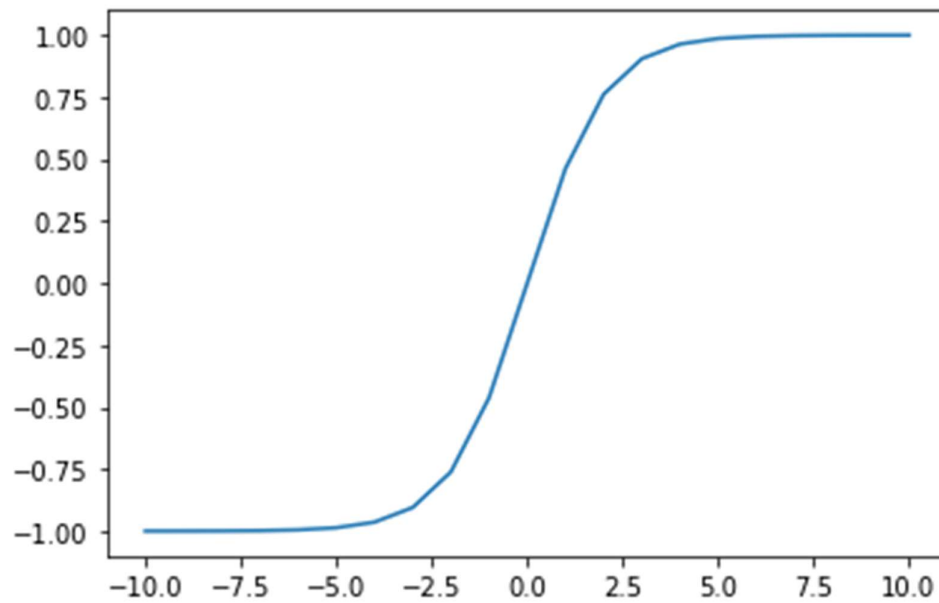
```
for i in x:
    v=(1-math.exp(-i))/(1+math.exp(-i))
    y.append(v)
plt.plot(x,y)
```

[<matplotlib.lines.Line2D at 0x7f1092ae4e10>]