Activation Func

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In [1]:
```
import numpy as np

class Activation:

    def sigmoid(self,x):
        y = 1.0 / (1.0 + np.exp(-x))
        return y

    def tanh(self,x):
        y = (np.exp(x) - np.exp(-x)) / (np.exp(x) + np.exp(-x))
        return y

    def relu(self,x):
        if x >= 0:
            y = x
        else:
            y = 0
        return y

    def leaky_relu(self,alpha,x):
        if x >= 0:
            y = x
        else:
            y = alpha*x
        return y

    def elu(self,alpha,x):
        if x >= 0:
            y = x
        else:
            y = alpha*(np.exp(x)-1)
        return y

activation = Activation()
print(activation.sigmoid(10))
print(activation.relu(20))
print(activation.tanh(-1))
print(activation.leaky_relu(0.1,-1))
```

```
        print(activation.elu(0.1,-1))
```

```
0.9999546021312976
20
-0.7615941559557649
-0.1
-0.06321205588285576
```