

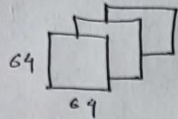
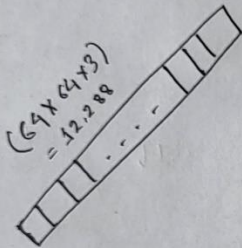
Question 1: Pen and Paper (a) and (b)

Data. ML. 200

Exercice - 2

Network

Input



\Rightarrow Flatten $(64 \times 64 \times 3) = 12,288$

Hidden Layers



output



② Now

Input:

$$64 \times 64 \times 3 = 12288$$

Hidden Layers

1st:

$$(12288 \times 100) + 100 = 1228800 + 100 = 1228900$$

2nd:

$$(100 \times 100) + 100 = 10100$$

output:

$$(100 \times 10) + 10 = 1010$$

$$\therefore \text{Total} = 1228900 + 10100 + 1010 = \boxed{1240010}$$

⑥ No. of training samples $= 5 \times 1240010$

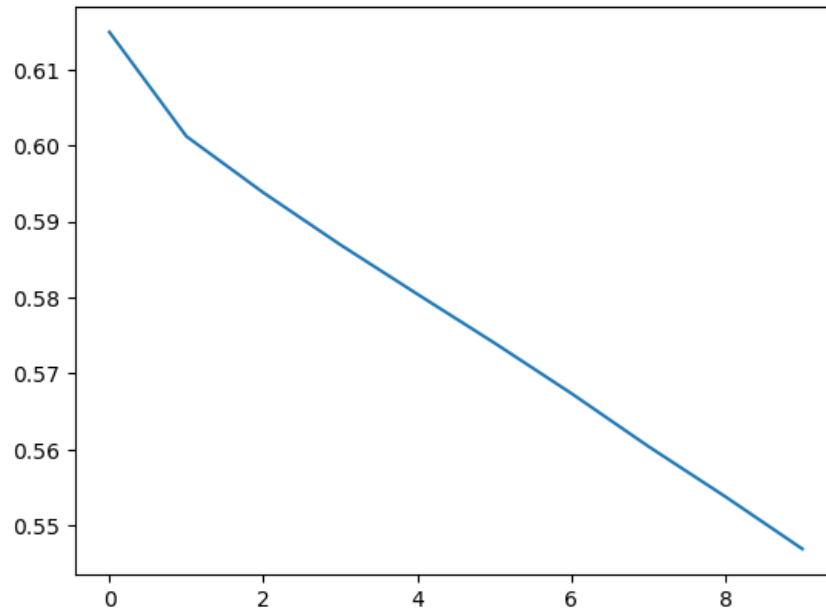
$$= \boxed{6200050}$$

Question 2: Outputs

Model 1: (10 neurons for the 1st, 2nd layers and 2 neurons for output)

```
plt.plot(history.history['loss'])
```

```
[<matplotlib.lines.Line2D at 0x28a425e9270>]
```

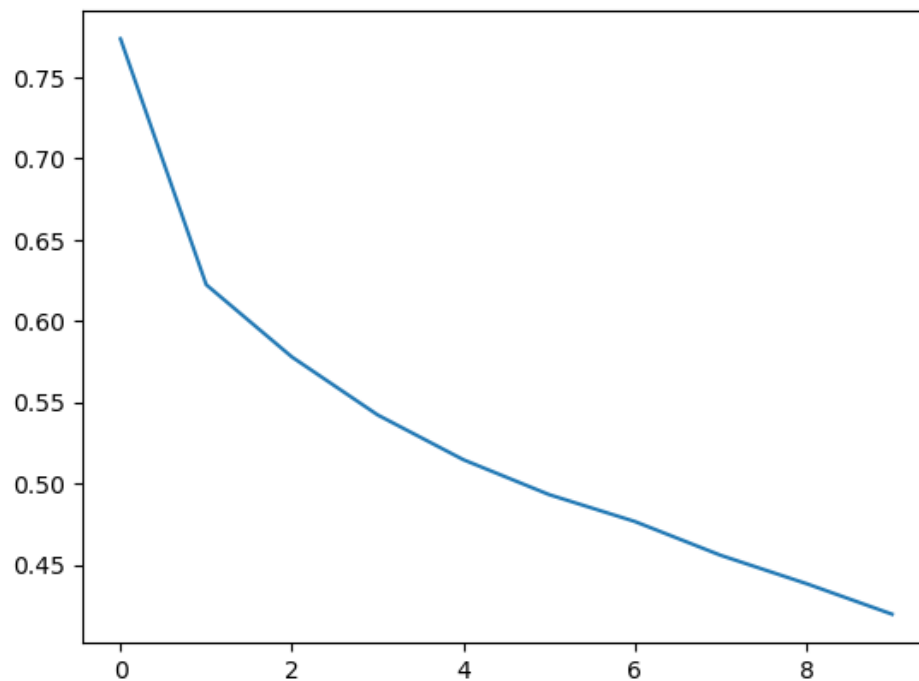


Accuracy: 0.6970

Model 2: (100 neurons for the 1st, 2nd layers and 2 neurons for output)

```
plt.plot(history.history['loss'])
```

```
[<matplotlib.lines.Line2D at 0x28a43cc1810>]
```



Accuracy: 0.8864

