

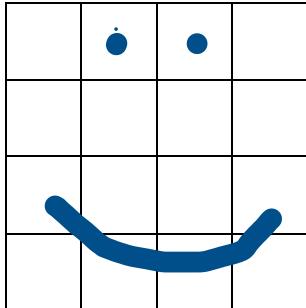


Digital Mirror

Am I friend or foe?

How does a Computer See

Sketch a **Happy** face



Write a **Happy** face as 0 and 1s

0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0

Comparing the same face using maths

Happy

0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0

Happy

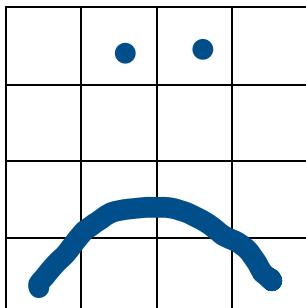


0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0

0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0

So what does *Happy* \times *Happy* = 6

Sketch a sad face



Write a sad face as numbers

0	1	1	0
0	0	0	0
0	1	1	0
1	0	0	1

Comparing the same face using maths

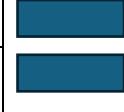
Sad

0	1	1	0
0	0	0	0
0	1	1	0
1	0	0	1



Sad

0	1	1	0
0	0	0	0
0	1	1	0
1	0	0	1



0	1	1	0
0	0	0	0
0	1	1	0
1	0	0	1

$$\text{Sad} \times \text{Sad} = 6$$

Comparing the same face using maths

Happy

0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0



Sad

0	1	1	0
0	0	0	0
0	1	1	0
1	0	0	1

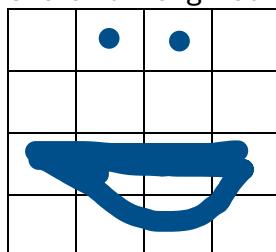


0	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0

$$\text{Happy} \times \text{Sad} = 2$$

Happy, sad and Delighted

Sketch a Delighted face



Write a Delighted face as numbers

0	1	1	0
0	0	0	0
1	1	1	1
0	1	1	0

Comparison of All the Faces

Happy	6	6	2
Delighted	6	8	4
Sad	2	4	6

Happy	6	6	2
Delighted	6	8	4
Sad	2	4	6