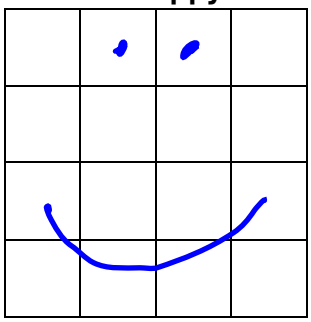
Digital Mirror

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

=

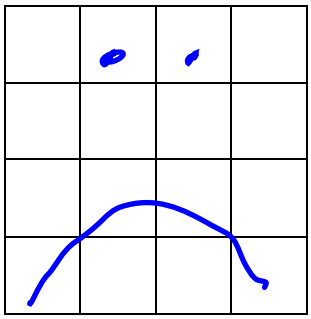
0	1	1	0
0	0	0	0
1	0	0	1
0	1	1	0

So what does Happy x Happy = HAPPY

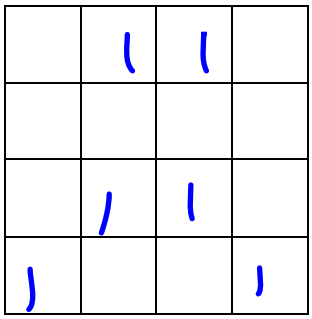
Add all the numbers together.

Happy x Happy = 6

Sketch a sad face

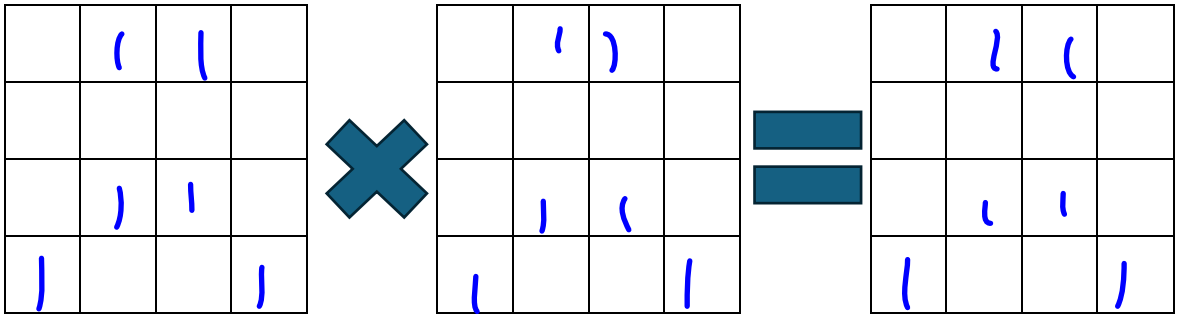


Write a sad face as numbers



Comparing the same face using maths

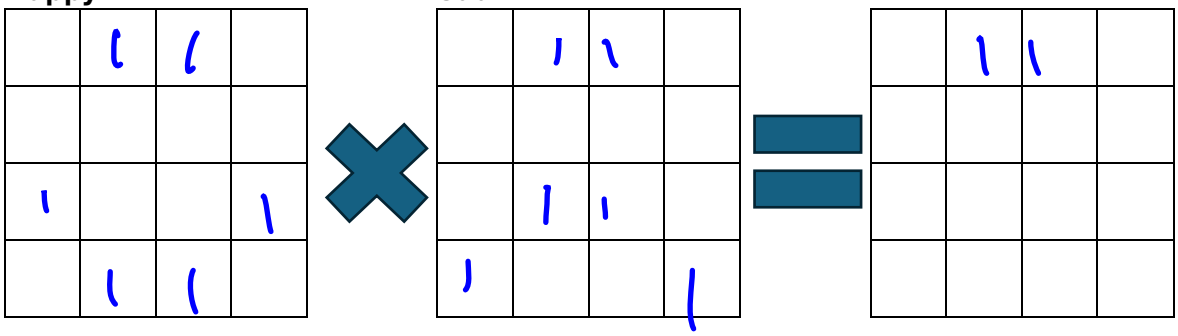
Sad **Sad**



Sad x Sad = 6

Comparing the same face using maths

Happy **Sad**

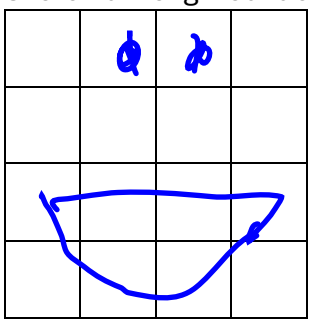


Happy x Sad = 2

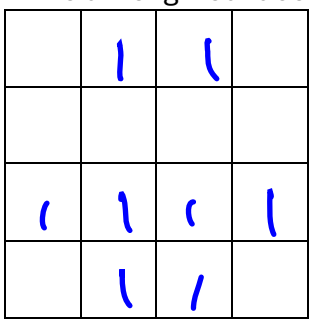
What faces are most alike?

Happy, sad and Delighted

Sketch a Delighted face

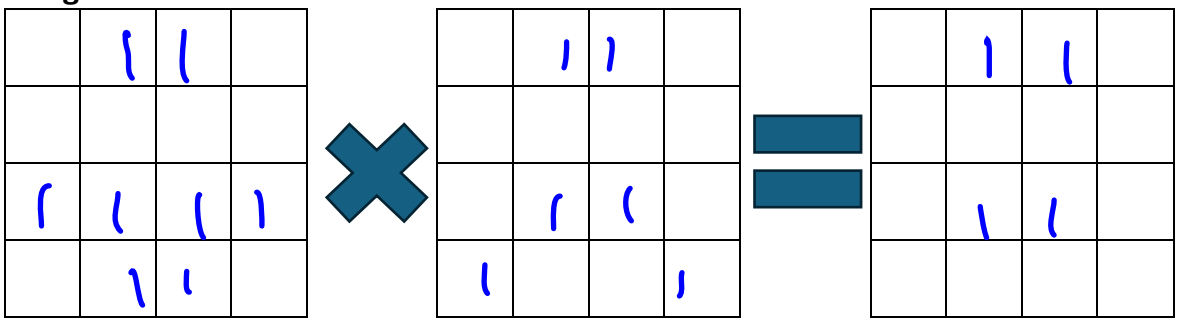


Write a Delighted face as numbers



Comparing the more faces using maths

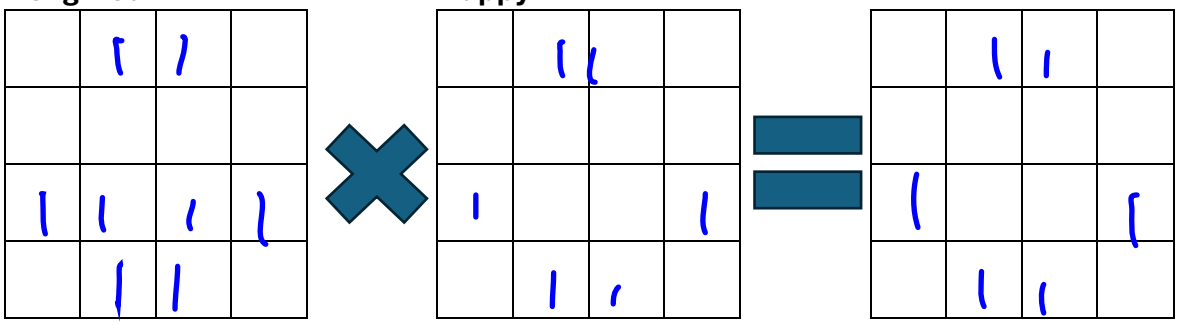
Delighted **Sad**



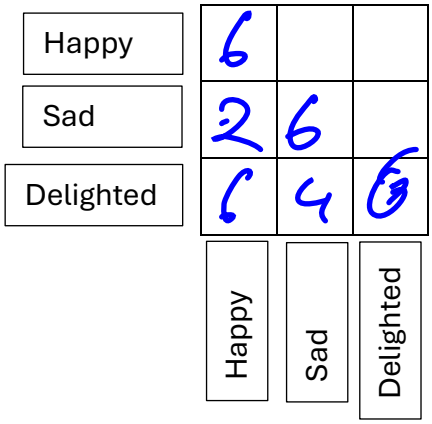
Delighted x Sad = 4

Comparing the same face using maths

Delighted **Happy**



Delighted x Sad = 6



Going from 2D to 1D