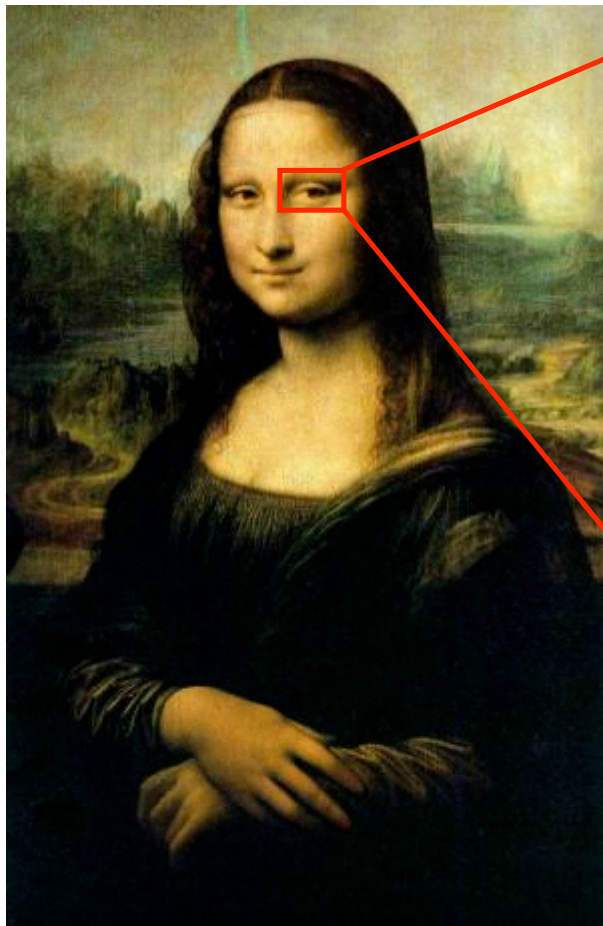


Digital Images

Images are often represented in a computer as a 2-dimensional (2D) array of pixels.

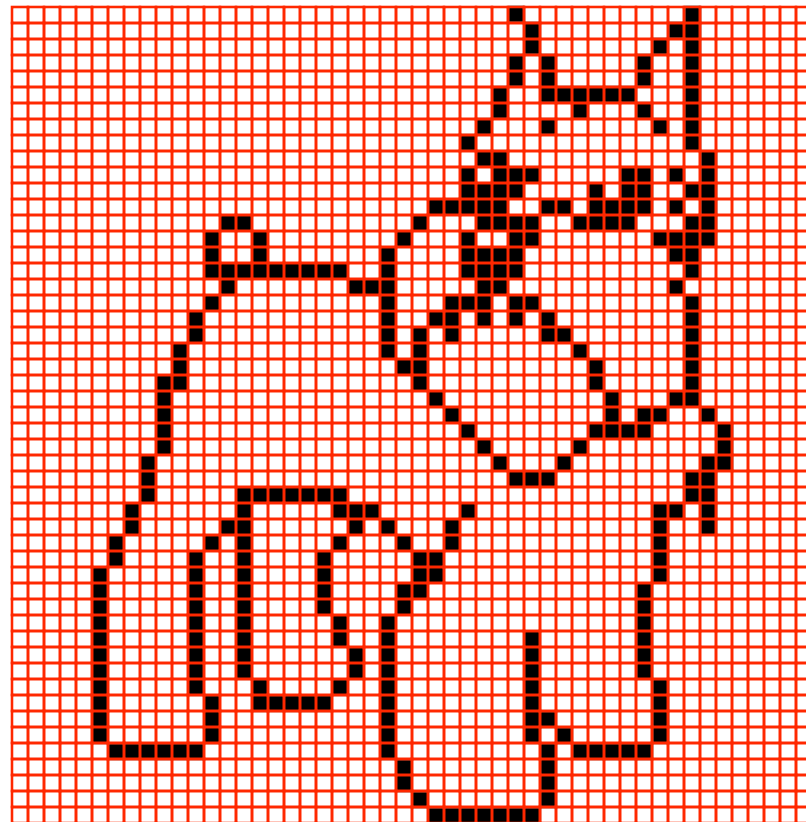


38 pixels high

44 pixels wide

Digital Images

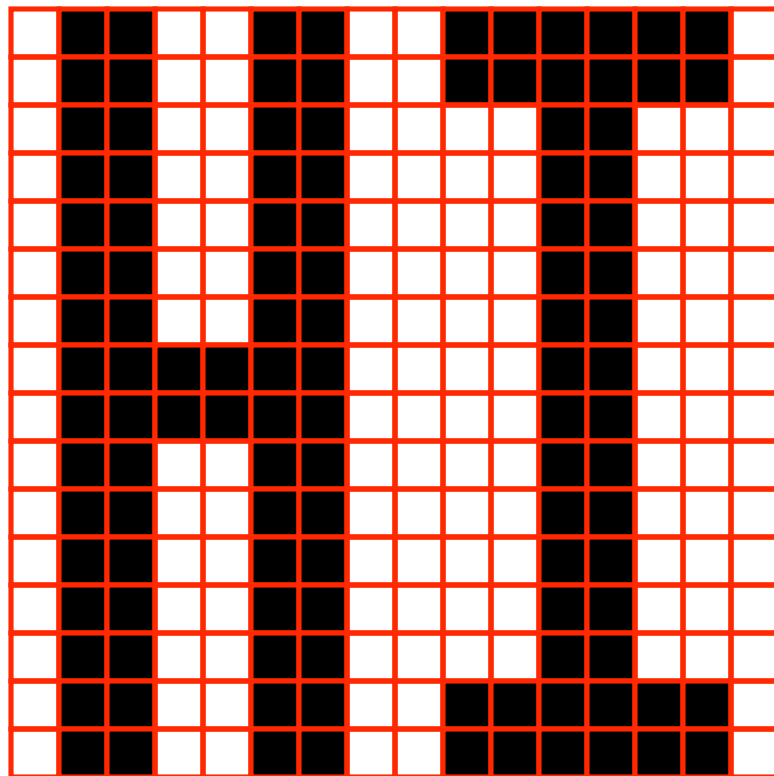
Images are often represented in a computer as a 2-dimensional (2D) array of pixels.



50 x 50

Image Formats

Images can be encoded in different ways (e.g., JPEG, GIF, BMP, PNG). One way to represent images is to encode each **pixel** as an integer.



16 x 16

```
1 0 0 1 1 0 0 1 1 0 0 0 0 0 0 1
1 0 0 1 1 0 0 1 1 0 0 0 0 0 0 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 0 0 0 0 1 1 1 1 0 0 1 1 1
1 0 0 0 0 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 1 1 0 0 1 1 1
1 0 0 1 1 0 0 1 1 0 0 0 0 0 0 1
1 0 0 1 1 0 0 1 1 0 0 0 0 0 0 1
```

Images