Creating an Image from Digital Information.

An image has been stored in a computer in bitmap format. Your job is to re-create the image from the digital data.

The image only uses 4 colours – blue, green, brown and yellow. These have been stored digitally as binary codes.

Colour:	Blue	Green	Brown	Yellow
Binary Code:	11	10	01	00

The size of the image has also been stored digitally. The height and width, in pixels, have been stored as 4 bit binary numbers. For example, if the height of the image was 4 pixels and the width was 4 pixels, this would be stored as 0100 0100. This height and width information will be stored <u>at the end of the file.</u>

For example look at the follow image:

00	11	11	11
11	00	11	11
00	11	11	11
11	10	10	10

The digital file that represents this image would be:

0011111110011100111111110101<u>01000100</u>

Remember, the underlined bits at the end of the file represent the height and width of the image.

Decoding the Digital Image File

Here is the string of binary data that makes up the digital image file:

```
11111110111111000000011110101011100000011101010101011110000111110101011
11111111111111011111111111111111111011111111111111111110111111111111111
11101010101111111111101010101010111111111010101010101010101010101010
```

Your task is to convert this back into the original image. Use the grid below.

HINT – the first thing you should do is identify the height and width of the image.