





## **Colour By Roman Numeral Pixel Puzzle**

Pictures can be stored in a computer as a grid of numbers. Each number gives the colour of that small area or **pixel**. This is also the way digital images are stored and represented on a screen.

The Romans had the same idea when creating mosaics to decorate their floors. They created designs using lots of small coloured stones or pieces of glass cut into squares. They called them **tesserae**. In this one the tesserae are labelled with Roman Numerals but the key is in decimal. Recreate the mosaic using the key.

X	Χ	X	Х	Х	Х	X	Х	X	X	X	X	Х	X	X	Х	X	X	X	Х	X
X	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	Ι	X
X	Ι	Ι	Ι	Ι	Ι	Ι	V	V	V	V	V	V	V	Ι	Ι	Ι	Ι	Ι	Ι	Х
Х	Ι	Ι	Ι	Ι	Ι	Ι	V	С	С	С	V	Ι	V	Ι	Ι	Ι	Ι	Ι	Ι	Х
Х	L	Ι	Ι	Ι	X	Х	V	С	Ι	С	V	Ι	V	Ι	Ι	Ι	Ι	Ι	Ι	Х
Х	Ι	Х	X	X	Х	Х	V	С	С	С	V	I	V	Ι	Ι	Ι	Ι	Ι	Ι	Х
Х	Ι	L	Ι	Ι	Ι	Ι	V	V	V	V	V	Ι	V	Ι	Ι	Ι	Ι	Ι	Ι	Х
Х	Ι	Ι	L	Ι	Ι	Ι	V	L	L	V	Ι	Ι	Ι	Ι	Ι	V	V	Ι	Ι	Х
Х	Ι	L	Ι	Ι	Ι	Ι	V	L	L	V	Ι	I	Ι	Ι	С	С	С	V	Ι	Х
Х	Ι	Ι	L	Ι	Ι	V	L	L	V	Ι	Ι	Ι	Ι	Ι	С	Ι	С	V	Ι	Х
Х	Ι	Ι	L	Ι	Ι	V	L	L	V	Ι	V	V	V	Ι	Ι	Ι	V	V	Ι	Х
Х	Ι	L	Ι	Ι	Ι	Ι	V	L	V	Ι	V	V	V	V	Ι	Ι	Х	V	Ι	Х
Х	Ι	Ι	Ι	Ι	Ι	V	L	L	V	V	V	С	V	V	Ι	Ι	Х	V	Ι	Х
Х	Ι	Ι	Ι	Ι	V	L	L	V	С	V	С	V	L	L	V	Ι	V	V	Ι	Х
Х	Ι	Ι	Ι	Ι	V	L	L	V	С	V	С	V	L	L	V	Ι	Х	V	Ι	Х
Х	Ι	Ι	Ι	V	L	L	V	С	V	С	С	V	L	L	V	Ι	V	V	Ι	Х
Х	Ι	Ι	Ι	V	L	L	V	С	V	С	С	V	L	L	V	Ι	Χ	V	Ι	Х
Х	Ι	Ι	Ι	Ι	V	L	L	V	С	V	С	С	V	V	Ι	Ι	V	Ι	Ι	Х
Х	Ι	Ι	Ι	Ι	V	L	L	V	С	V	С	С	С	V	X	X	V	Ι	Ι	Х
Х	Ι	Ι	Ι	Ι	Ι	V	L	L	V	С	С	V	V	V	V	V	Ι	Ι	Ι	Х
Х	Χ	Х	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

KEY

1 Black
5 Red
10 Yellow
50 Blue
100 Green

www.cs4fn.org

www.teachinglondoncomputing.org

Now create your own Roman-style mosaic puzzle.

