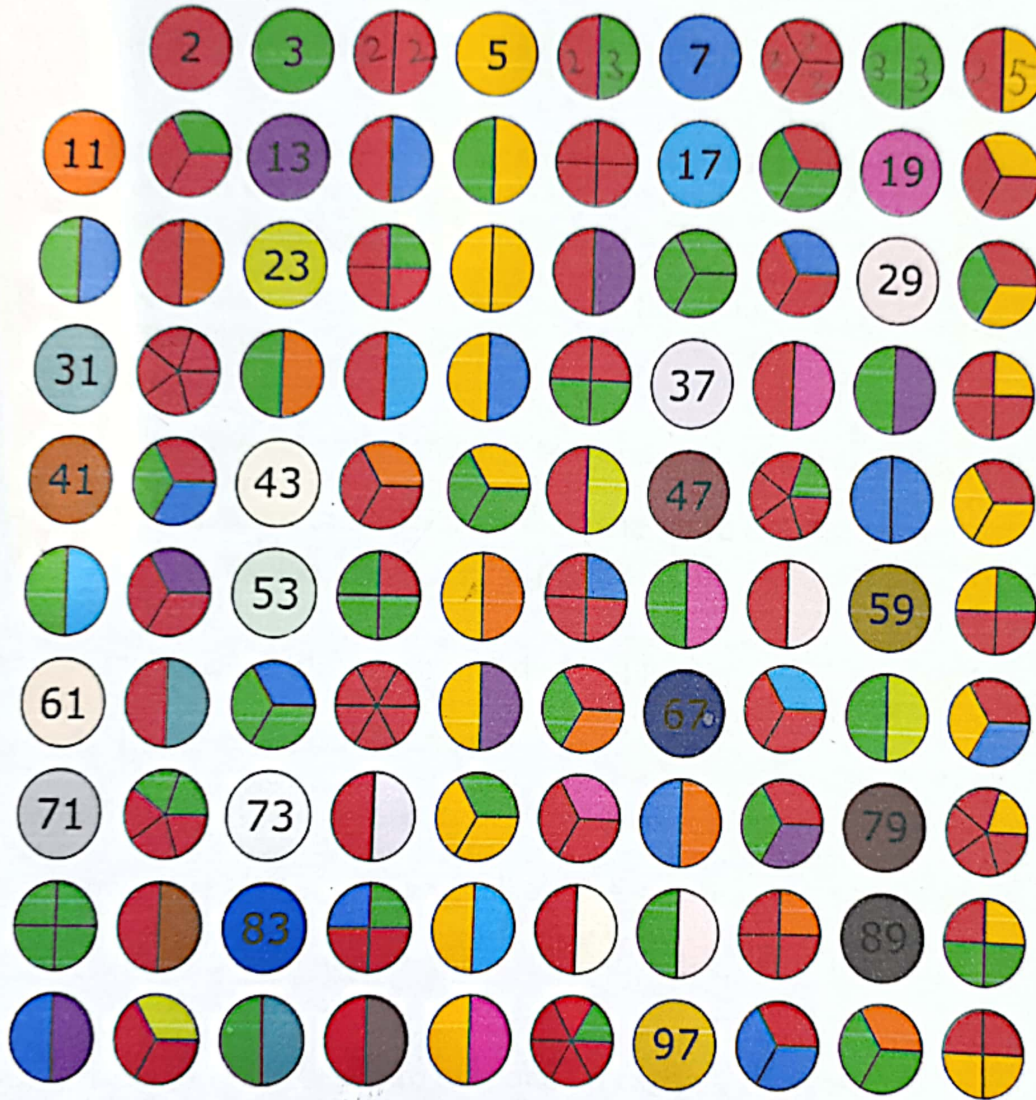


Xavi's T-shirt



What do you notice?

Here are some questions you may like to consider:

What is special about the circles that are not split up? They are prime numbers
 Can you explain what is happening in the top row?

They are multiples of 2, 3, 5 and 7

What do you notice about the colours in the fifth column? There are all multiples of 5
 What is happening in the far right column?

They are all multiples of 10

Take a look at the colours of the first two circles (2 and 3). They are prime numbers
 What is special about the circles/numbers that have these two colours?

What is special about the circles/numbers that have *only* these two colours? They are all divisible by 2, 3


Why do multiples of 11 appear on a diagonal line? the difference between

Why do multiples of 9 appear on a diagonal line? those numbers is 11.

The difference between them is 9.

Look at the circle that represents 8. The three parts are all the same colour.

How many other circles/numbers will also be split into three identical colours?

Yes, number 27  $3 \times 3 \times 3 = 27$

On the bottom row, 93, 94 and 95 appear as three consecutive circles/numbers, each split into two, and no colour is repeated.

Can you find a similar set of four consecutive circles/numbers where no colour is repeated? If not, why not?

No, I might find such numbers which are more than 100

What other patterns can you see? Can you explain why they occur?

Even numbers have red colour in it.