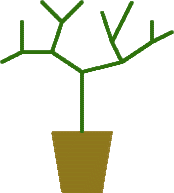
**Maths Challenge 13.1.21**

**The Amazing Splitting Plant**

The splitting plant grows in a special way.

In the first week, the stem splits into two branches.  
In the second week, each of these two branches split into another two branches - making four branches altogether.  
  
This keeps happening every week, until at the end of the sixth week each branch grows a flower.  
  
How many flowers will the plant have?



1. What do you notice about the pattern?
2. What if the plant branches in different ways, maybe in 3s, 4s, 5s etc.

What would happen then? How many flowers would there be after 6 weeks?

**What maths skills are you using to work**

**out your answers?**