

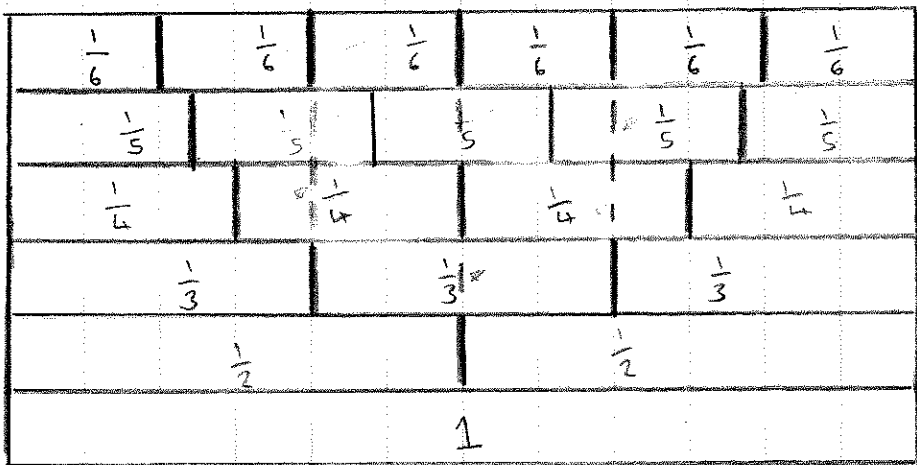
25-06-18

Tumbling Down

The aim of this exercise was to record every little thing you could see in the video 'Tumbling down' and to explain what was actually happening during it. After a while, I concluded that there was thirteen vertical lines to start with. (In the diagram below, they are pink.)

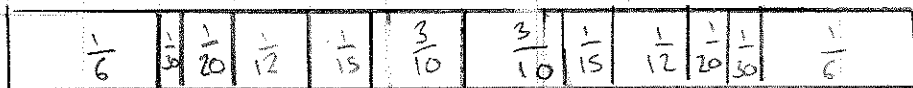
Here is the starting image.

It is like a fraction wall.



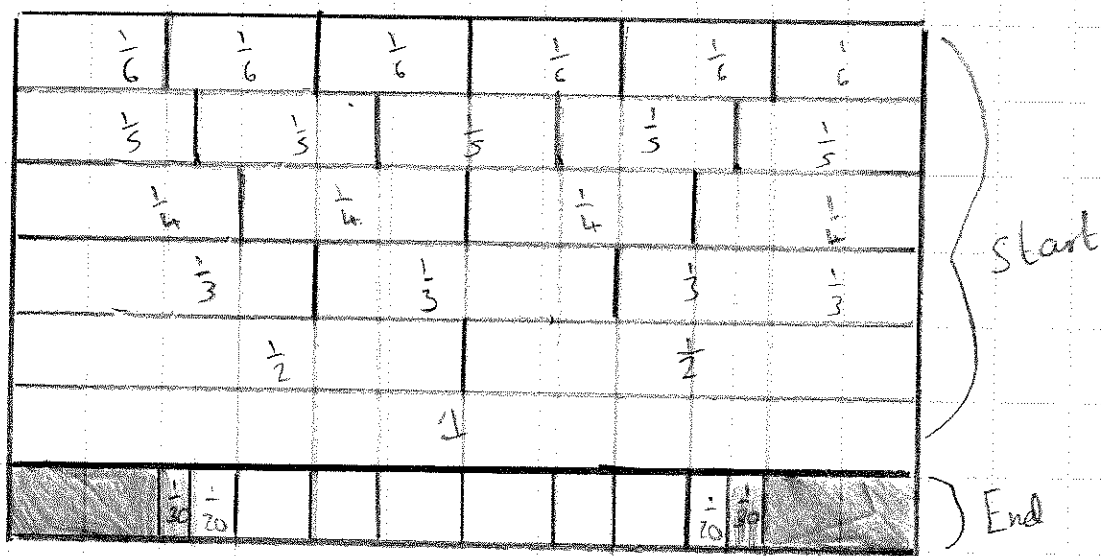
In this (where I have drawn smaller lines) I believe that they are one line as in the end image they compact together to make one vertical line.

Here is the end image.



I had found what fraction each part was in the ending image and it was quite easy there was a pattern. All the lines come together and some join up to make the end image. There is a line of symmetry though both the start and the end pictures. Then I added 7 tabs to the starting image and then find what each fraction was at the end. There was no particular pattern but it still was symmetrical.

How I worked out the fractions on the ending image:



I could see in the ending image that the first section (coloured orange) and the end section (also in orange) were in line with the first sixth and the last sixth so then I looked along the line and I saw a line of symmetry in the middle. The line in the middle is in line with $\frac{1}{2}$, $\frac{2}{4}$ and $\frac{3}{6}$. I have lined up, in blue, with the lines that join up to make the end image.

Between the first sixth and first six fifth it makes the second ^{Good} section; so to work out the fraction for that, I did $\frac{1}{6} - \frac{1}{5} = \frac{1}{30}$ so that section and the second last section are both $\frac{1}{30}$. (Purple)

Then for the next one, with my ruler, I lined up the lines and it was $\frac{1}{5} - \frac{1}{4}$ so it was $\frac{1}{20}$. Then I lined up all the others and did the same.

✓ Good observations and explanations Harriet.