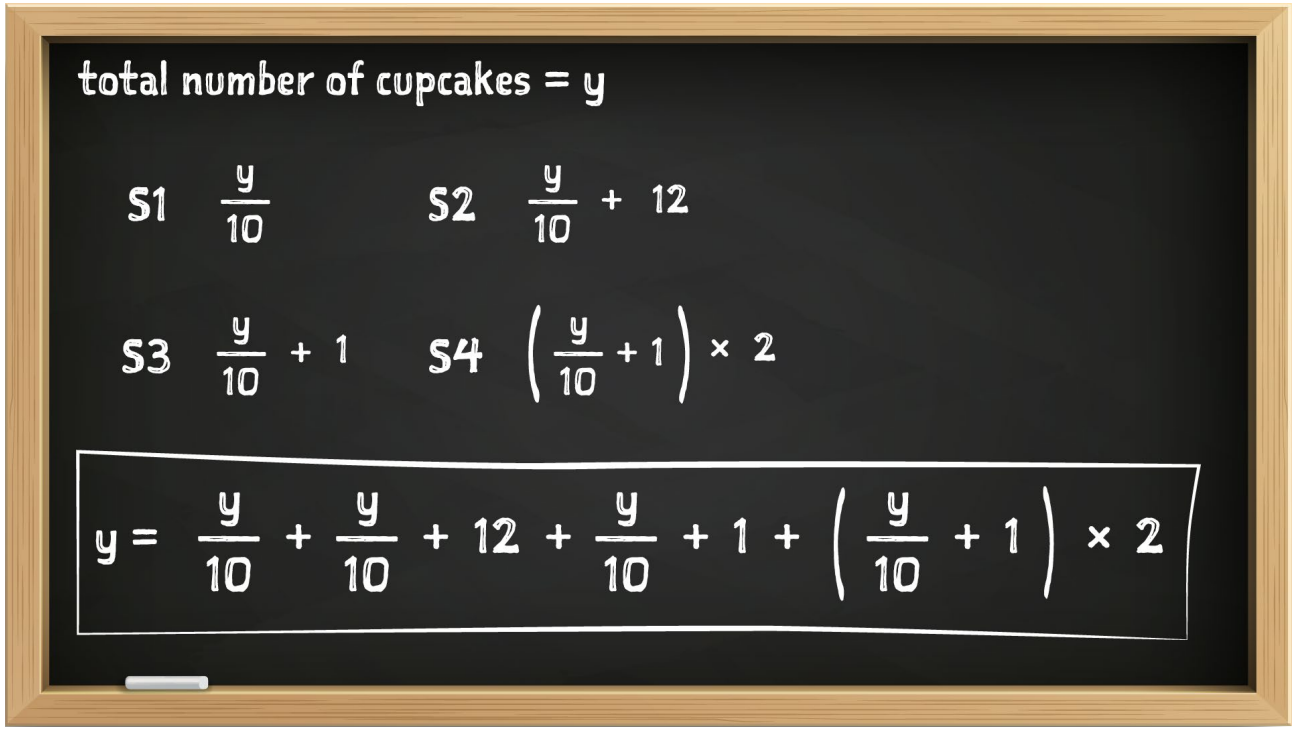
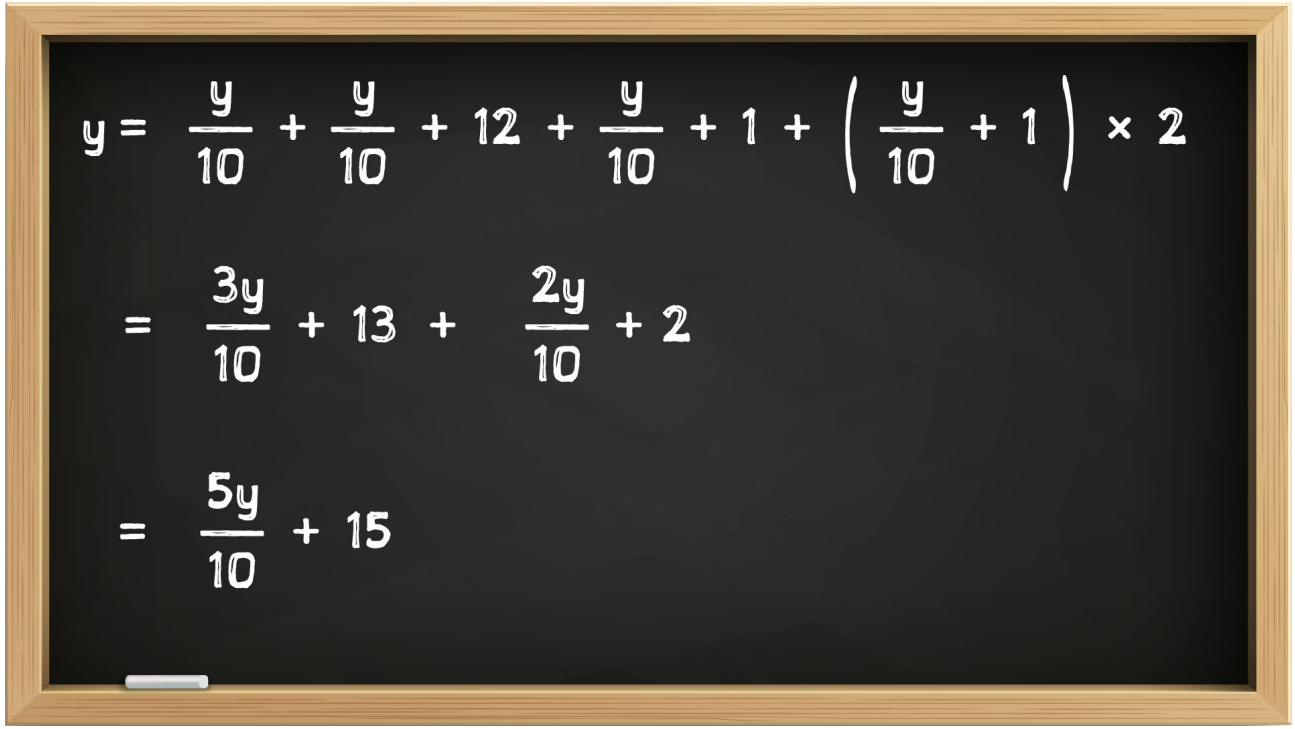
Maths in Action: Solution to Problem 1

Transcript	*Working*
So, to complete this problem, let us make the total number of cupcakes equal to y. Then the number of cupcakes baked by the first student is y over ten. The number of cupcakes baked by the second student is y over ten plus twelve. For the third student it is y over ten plus one. And for the fourth it is y over 10 plus one, everything multiplied by two. This gives us the following equation.	

Transcript	*Working*
Let's start by adding all the like terms together. So, y over ten plus y over ten plus y over ten gives us 3y over ten. Then twelve plus one equals thirteen. Next, we'll expand the brackets, so it becomes two y over ten plus two. Now we can simplify the expression further. Three y over ten plus two y over ten gives us five y over ten and thirteen plus two equals fifteen.	

Transcript	*Working*
We then simplify the fraction by five. So, y equals y over two plus fifteen. Now we can separate y on the left side. So, y minus y over two equals fifteen. So, y over two equals fifteen. Now we can multiply both sides by two. And we can see that y is equal to 30. Therefore, the total number of cupcakes is thirty.