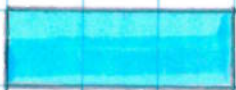


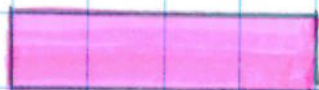
Combining Lengths

Holly Bennett

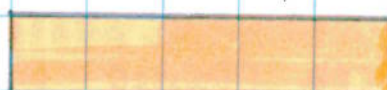
1) a) What's the largest number of consecutive lengths it is possible to measure with a set of these rods?



3 rod



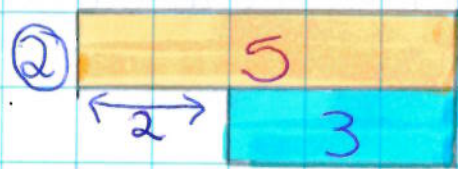
4 rod



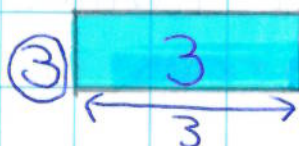
5 rod



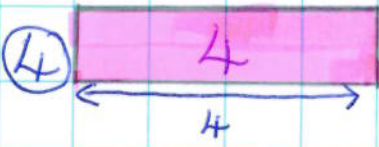
To make 1 take 3 away from 4.



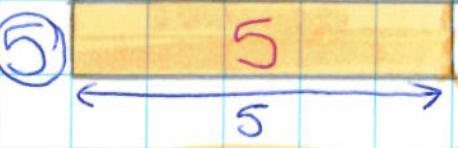
To make 2 take 3 away from 5.



To make 3 use a 3 rod.



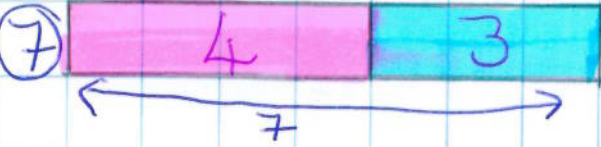
To make 4 use a 4 rod.



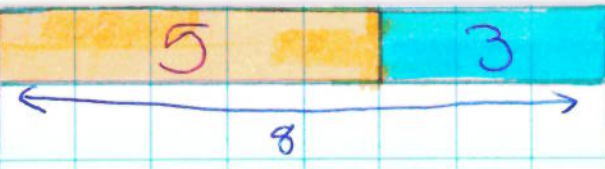
To make 5 use a 5 rod.




To make 6 add a 4 and 5 and take away a 3.



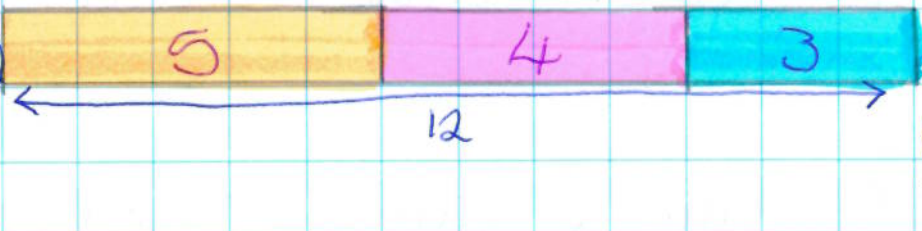
To make 7 add a 4 and a 3.

⑧  To make 8 add a 5 and a 3.

⑨  To make 9 add a 5 and a 4.

⑩ - You can't make 10 from these rods.

⑪ - You can't make 11 from these rods.

⑫  To make 12 add a 5, a 4 and a 3.

The largest number of consecutive numbers that can be made from 3, 4, 5 rods is 9, but 12 can also be made.