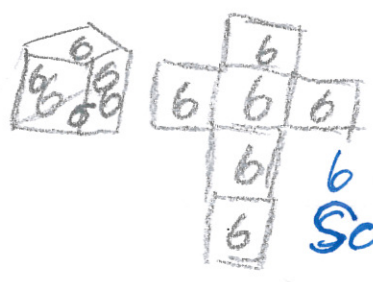


6 numbered cubes

1) I agree that the answer to all the cubes numbers added up is 78. I ~~counted~~ ^{found} the answer by counting every number which is visible for example:

If I had the cube numbered six on each of its sides, and then put the cube four right next to it, I would only count the number 6 and 4 where I see them. So my total would be $4+4+4+4+6+6+6+6=40$. My total in this example is 40.



2) My highest numbered staircase arrangement that I found was 82:

6		
3	5	
2	1	4

 My lowest was 64:

1		
4	3	
5	6	2

 You always want to have the largest or smallest cube on top due to the fact that the cube on top will have almost all of its faces uncovered other than the face it is on.

3) I then tried other shapes and I found one which I believe gives us the largest and smallest answer possible.



In both of these the opposite cube (so for the largest number the smallest cube) is hidden inside the shape so that it isn't counted and vice versa. Also the same rule applies for the cube on top.