

**Question:** Can I return the lowest value of a group of numbers, but ignore any zeroes there may be?

**Answer:** Yes, using a combination of functions, including the SMALL function

**Process (Excel 2003 and 2007):**

There may be a range of numbers, such as test scores, where you would like to find the lowest number in a range, but ignore any zeroes that might be in that range. What you will need to do is work out how many zeroes might be in the range, ignore them to get the next highest number and then select it.

This example will use an IF, a COUNTIF, a MIN and a SMALL function, and a range of scores from cells A2 to A10. It will also demonstrate each of the functions, using column D.

	A	B	C	D
1	Scores			
2	17			
3	80		SMALL Function	
4	0		IF Function	
5	92			
6	96			
7	75			
8	63			
9	0			
10	93			
11				

1 Select cell D3

2 Type in `=SMALL(A2:A10,3)`. The second part of this function (in this instance, **3**) gives the third smallest number in the range, starting from the lowest value. Because there are two zeroes in the range (A4 and A9), the next smallest number is 17, which is what the function returns.

	A	B	C	D	E
1	Scores				
2	17				
3	80		SMALL Function	17	
4	0		IF Function		
5	92				
6	96				
7	75				
8	63				
9	0				
10	93				

3 Select cell D4

4 Type in `=IF(MIN(A2:A10)=0,SMALL(A2:A10,COUNTIF(A2:A10,0)+1),MIN(A2:A10))` and press **Enter**.

	A	B	C	D	E	F	G	H	I	J
1	Scores									
2	17									
3	80		SMALL Function	17						
4	0		IF Function	17						
5	92									
6	96									
7	75									
8	63									
9	0									
10	93									

The IF function will do the following:

- Check to see if the lowest number is a zero (`IF(MIN(A2:A10)=0)`)
- If it is zero, the use COUNTIF to count the number of zeroes (`COUNTIF(A2:A10)`)
- Use the SMALL function to find the smallest value in the range - the number to be returned is based on the number of zeroes plus one (`SMALL(A2:A10,COUNTIF(A2:A10,0)+1)`)
- If there are no zeroes, the function will return the lowest number in the range (`MIN(A2:A10)`)