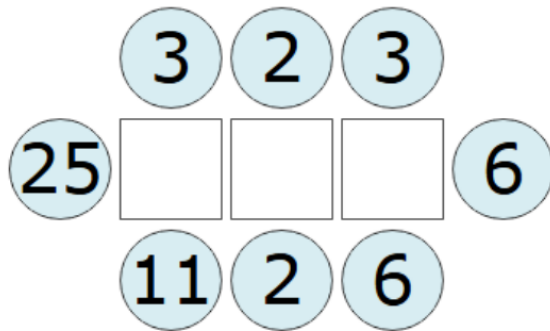




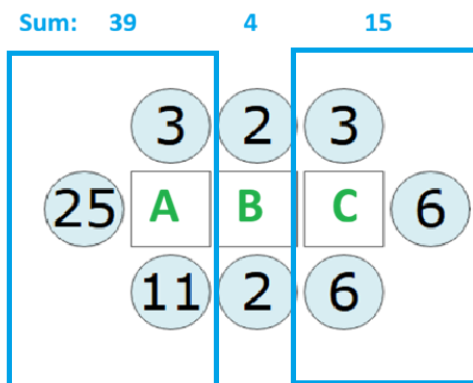
In these challenges, the number in each square is the average (mean) of the four numbers surrounding it.

Can you find the whole number that belongs in each square?



Your challenge is to find the missing number in each of the grids below.

Solution:



Lets call the 3 unknown values as A, B and C. Goal is to find these 3 values.

Step 1. Find the 3 totals highlighted in blue boxes in above diagram.

Three sums from right to left are:

1. $39 + B$
2. $4 + A + C$
3. $15 + B$

Step 2. Now, let me start from C. You can start from A side too.

Step 3. Since left hand sum is 39. A cannot be less than 10. Since mid-sum is 4, B cannot be less than 2 and since right sum is 15, C cannot be less than 4

Step 4.

Step 5. Now we know that the sum should be multiple of 4. We have total of 15, To make this a multiple of 4,

- a. Try $B=1$, then $\text{sum} = 15+1 = 16$, and value of C will be $16/4 = 4$, then $C=4$. But B cannot be 1 as this has to be >1 .
- b. So, we will try next number, $B=5$. Then $C = (15+5)/4 = 5$. This is a good possibility.
- c. Now, if $B=5$, $C=5$, let's find A.

$$A = (39+B)/4 = (39+5)/4 = 11.$$

So, $A = 11$

Step 6. Verification:

Validate the 3 values and cross check if the values are correct from either end.

Answer:

