

The sum of four whole numbers is 23.

The difference between the smallest and the largest number is 6.

All four numbers are different.

**What could the four numbers be?**

**Challenge:** Find *all the possible answers* to this question.

S  
U  
P  
P  
O  
R  
T

**Tip:** Share 23 counters between four whiteboards.

*Each whiteboard represents one of the numbers.*



smallest  
number



largest  
number



**Remember:** *the difference between the smallest number and the largest number is 6.*

E  
X  
P  
L  
A  
I  
N

**Explain how you know that this statement is correct:**

*'The largest number must be more than 7'*

**Answers are on the next page!**

**Answers:**

**Main Task:** Possible answers: 2, 6, 7, 8    3, 5, 6, 9    3, 4, 7, 9

**Explain:** If the largest number was 7 then the smallest number would have to be 1 for there to be a difference of 6 between the largest and smallest numbers. The other two numbers would have to add up to 15 ( $7 + 1 + 15 = 23$ ). It is not possible for two numbers to add up to 15 without one of the numbers being larger than 7.