

5 and 7 difference

This is another question with more than one possible answer

Let the numbers be a, b, c and d .

$$\text{So } a + b + c + d = 100$$

$$a - b = 7$$

$$c - d = 5$$

a and b can't be the same numbers since they have a difference of 7

c and d can't be the same numbers since they have a difference of 5

So the possibilities are that $a = c$ or $a = d$ or $b = c$ or $b = d$

1) If $a = c$

$$a - b = 7 \Rightarrow b = a - 7$$

$$c - d = 5 \Rightarrow a - d = 5 \Rightarrow d = a - 5$$

$$\text{So } a + b + c + d = 100 \text{ can be written } a + a - 7 + a + a - 5 = 100$$

$$4a - 12 = 100$$

$$4a = 112$$