Prompt:
Of the 60 families in a certain neighborhood, 38 have a cat. How many of the families in this neighborhood have a dog?

I will use a double-matrix solution. Here's what we have just after the prompt:

	Cat	**No Cat**	**TOTALS**
Dog			??
No Dog			
TOTALS	38	22	60

(1) 28 of the families in this neighborhood have a cat but not a dog

	Cat	**No Cat**	**TOTALS**
Dog	10		??
No Dog	28		
TOTALS	38	22	60

It's enough to solve for all entries in the first column, but not enough to solve for everything in the first row. Statement #1, by itself, is **insufficient**.

(2) The number of families in the neighborhood who have a dog and a cat is the same as the number of families who have neither a cat nor a dog.

We have to be *very careful* here to go back to the prompt table, and not include any information in Statement #1.

	Cat	**No Cat**	**TOTALS**
Dog	x		??
No Dog		x	
TOTALS	38	22	60

Again, not enough to solve. Statement #2, by itself, is **insufficient**.

(1) 28 of the families in this neighborhood have a cat but not a dog
(2) The number of families in the neighborhood who have a dog and a cat is the same as the number of families who have neither a cat nor a dog.

	Cat	**No Cat**	**TOTALS**
Dog	10		??
No Dog	28	10	
TOTALS	38	22	60

Now, we are able to find the number of folks in the upper left box (cat & dog owners) from statement #1, and then transfer that number to the box for no cat & no dog. This, in turn, allows us to solve for every number in the matrix:

	Cat	**No Cat**	**TOTALS**
Dog	10	12	22
No Dog	28	10	38
TOTALS	38	22	60

So, combined, the statements are sufficient.

Answer = **C**