

**In the grid below, look for pairs of numbers that add up to a multiple of 11.**

9	46	79	13
64	90	2	97
25	31	20	22
4	52	55	7

Are there any numbers that can only have one partner?

Are there any numbers that could have more than one partner?

What is special about numbers which have the same set of partners?

**Can you find every possible pair?**

**How can you be sure you haven't missed any?**

*You may have solved the problem by looking at how close each number is to a multiple of 11...*

Here is another grid.

**This time, look for pairs that add up to a multiple of 13.**

11	54	93	15
76	106	2	115
29	37	24	26
4	62	65	9

**How can you use your insights from the first problem to be sure you have found all the possible pairings?**