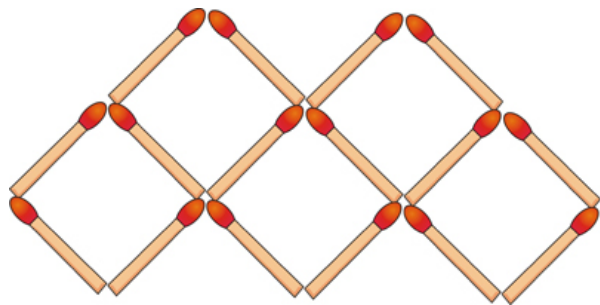


Diamond patterns III

This task is about spatial patterns and rules.

Miriam began making the diamond pattern below with matches.



She noticed a relationship between the number of diamonds and the total number of matches used, which she recorded on a chart.

Number of diamonds	1	2	3	4	5	6	7	8
Number of matches	4	7						

- a) Complete the table above to show the number of matches used, for each diamond pattern.
- b) How many matches would be needed for 20 diamonds? _____ matches.
You may show your working in the space below.

- c) What rule did you use to find the number of matches needed for 20 diamonds?