



Brain Busters

Fun with Cubes



Niamh, Aoife and John like playing with multilink cubes. Niamh arranged nine multilink cubes so that they formed a flat square (3x3).

She then took one away and the remaining eight could no longer form a square but could be arranged either as a 2x4 flat rectangle, or a 2x2x2 cube.



The following questions also involve rearranging multilink cubes:

1. What is the least number of cubes that John can both spread out to form a flat (single row) square and stack to form a cube (3-D)?
2. When Aoife lost one of the cubes from her set, she found that she could only make one rectangular shape with the cubes she had left, whereas before she could make at least four different flat rectangles and at least two cuboids (which were two blocks high).

How many cubes had she in the set at first?

