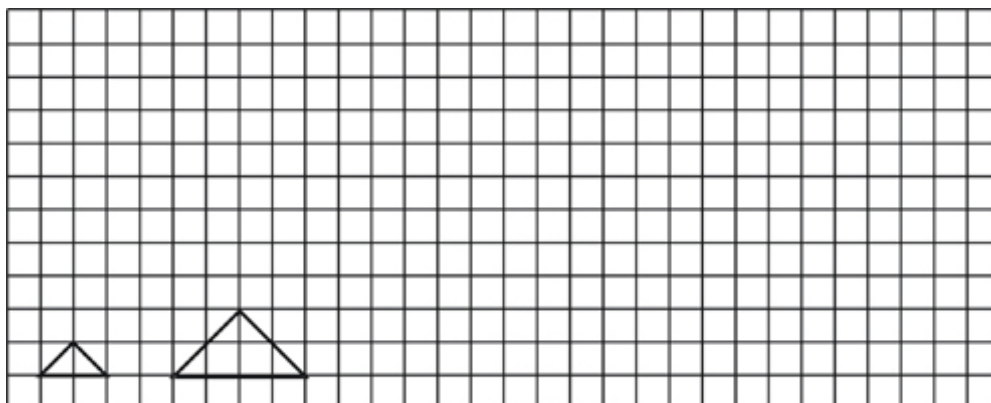


Grid triangles

This task is about continuing a pattern of triangles, and finding a rule.



a) On the grid of squares above, draw the next 2 shapes in this series of triangles.

b) Complete this table, giving the area of each triangle:

| | | | | |
|---|---|---|---|---|
| Height of triangle (number of squares high) | 1 | 2 | 3 | 4 |
| Number of squares in the triangle (area) | 1 | 4 | | |

c) How many squares will be in a triangle of height ...

i) 10 squares? _____ squares

ii) 20 squares? _____ squares

d) Explain or write a rule that describes how to work out the total number of squares (area) needed for any given height of triangle.

e) Show how to work out the height of a triangle that has 81 squares in it.

Height = _____ squares