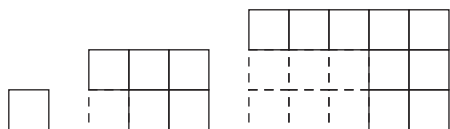


- Identify each of the following as geometric or arithmetic, write down a general formula for the n th term u_n and the n th partial sum S_n

(a) $3 + 9 + 15 + \dots$

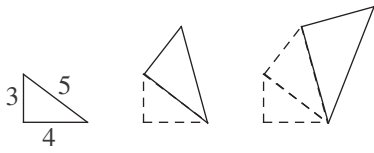
(b) $3 + 9 + 27 + \dots$

- Consider the following diagrams showing the area added to a seed square at each generation in an accumulated growth process.



- Draw the next two figures in the series
- Write down a sequence showing the area added each generation.
- By finding the sum of the sequence write down a formula for the total area of the figure in the n th generation

3. Consider the following model for accumulated growth of a shell



(a) Draw the next two figures in the series

(b) Write down a sequence showing the area added each generation.

(c) Write down a formula for the total area of the figure in the n th generation

4. The following figure shows an infinite sum of triangles forming a spiral. If the area of the square is 1, write down an infinite geometric series representing the area of the spiral and find the sum of that series.

