

Expanding Pattern

The diagram shows the first three figures in a pattern.

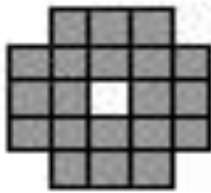


Figure 1

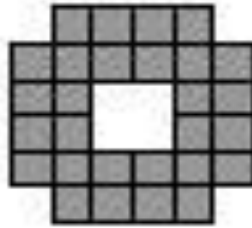


Figure 2

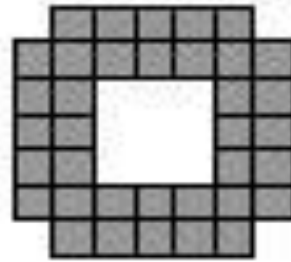


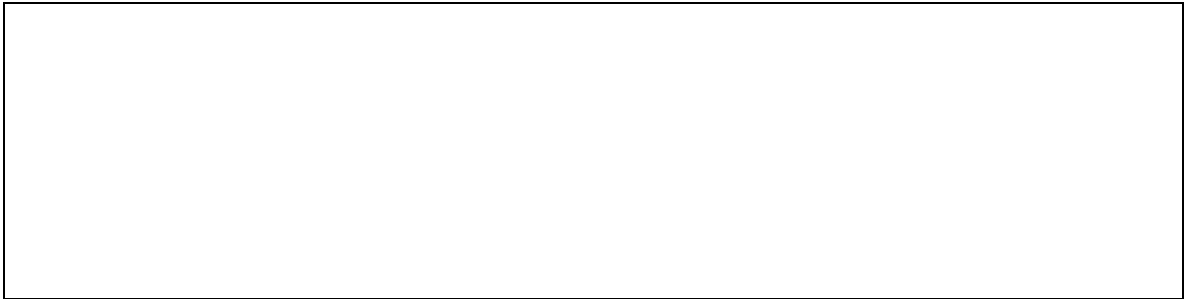
Figure 3

- a) Figure 1 has 20 small (grey) squares.
Count and record the squares (grey) in Figure 2 and Figure 3.
What is happening?
How is the pattern growing?

- b) Draw Figure 4.

- c) If you continue this pattern, how many small (grey) squares are there in Figure 10?

Give your answer with an explanation.



- c) Extension (Challenge).

How many small (grey) squares will there be in Figure 98?

Work it out and explain.



- d) Create.

Create another diagram showing a growing pattern.

Draw the first 3 and the 19th one.

Label and explain.