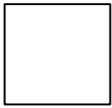


Tile Patterns

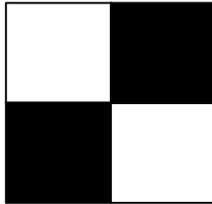
Name:

Class:

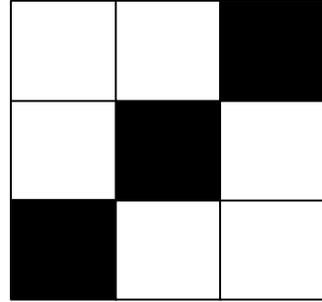
Whilst visiting B&Q Joe noticed a Sales Assistant setting up the following display of tiles using black and white tiles.



Pattern 1



Pattern 2



Pattern 3

How many black tiles will the Sales Assistant need to make the next pattern?
Show your working.

How many white tiles will the Sales Assistant need to make the next pattern?
Show your working.

How many black tiles will the Sales Assistant need to make the tenth pattern?
Show your working.

How many white tiles will the Sales Assistant need to make the tenth pattern?
Show your working.

How would you help the Sales Assistant find the number of black tiles in the 23rd pattern? Show your working.

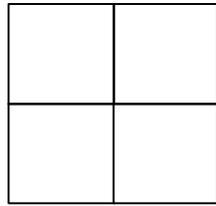
How would you help the Sales Assistant find the number of white tiles in the 23rd pattern? Show your working.

Use what you have done above to work out the number of black and white tiles needed in the 31st pattern. Show all your working clearly.

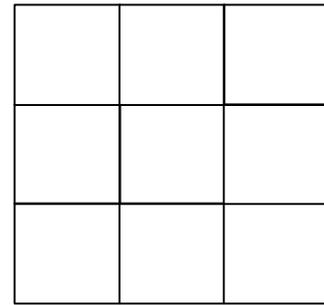
The Sales Assistant makes the same pattern again using white tiles only.



Pattern 1



Pattern 2



Pattern 3

Fill in the following table.

Pattern Number	1	2	3	4	5	6	7	8
Number of white tiles								

Can you see a pattern? Describe what you can see.

Predict the number of white tiles needed in the 28th pattern. Show your working.

Predict the number of white tiles needed in the 38th pattern. Show your working.