

THE X FACTOR

PATHS IN THE PARK – RECORDING AND REFLECTING

1. Once you've seen how the paths in the park are designed, use the blocks to make designs of different sizes. In the space below, record the outcomes of your different designs.
2. How many tiles do you think would be needed if each arm was to have 80 tiles? Explain your thinking clearly below.
3. Write a set of instructions that explains how to work out the number of tiles needed for a design of any size.
4. Think of another way of quickly working out how many tiles are needed for a design of any size. Write it here. You may like to work with someone else in the class.

5. Use one of your sets of instructions to work out how many tiles would be needed for these designs:
- Arm length of 57
 - Arm length of 121
 - Arm length of 300

Use your second set of instructions to work out how many tiles would be needed. What do you notice?

6. If the gardener took 85 tiles with her to a job, how big a design could she make? Explain your working below.

7. The gardener records how many tiles she uses for each design. Last week, she built 5 'four arm' paths in different parks. She recorded her results in this table, but she thinks that she wrote down one of the numbers incorrectly. Which one do you think was incorrect, and why?

Day the path was built	Monday	Tuesday	Wednesday	Thursday	Friday
Tiles used	65	101	19	201	2397