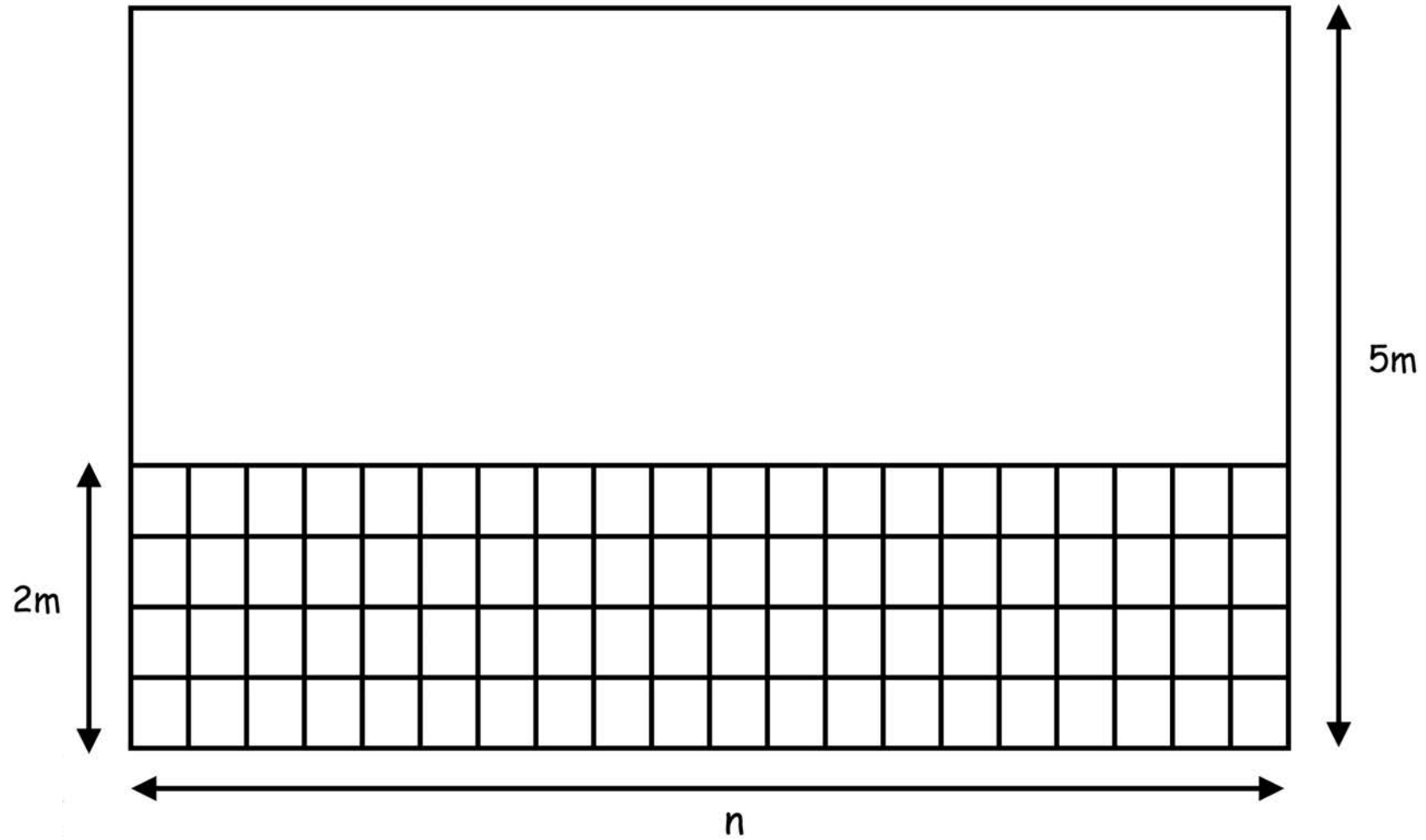
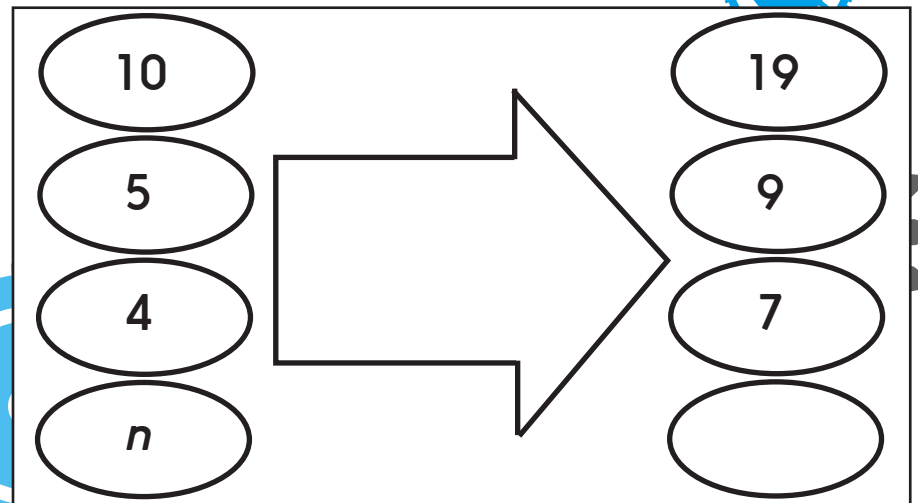
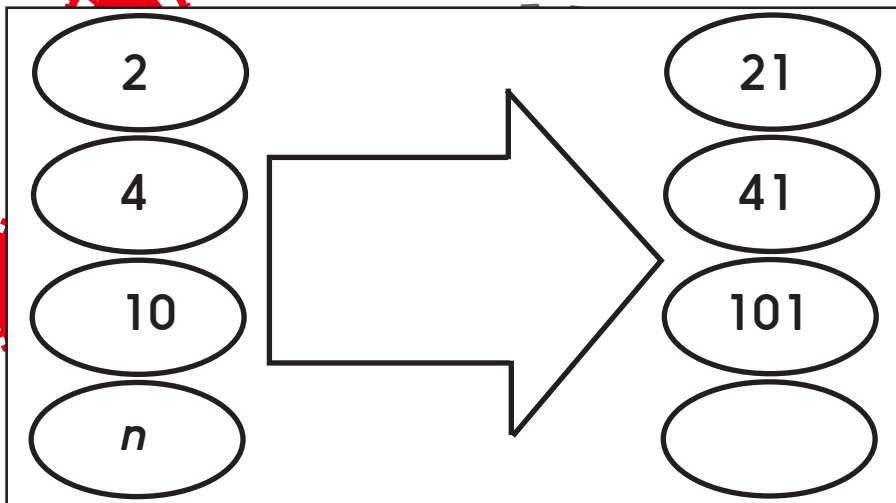
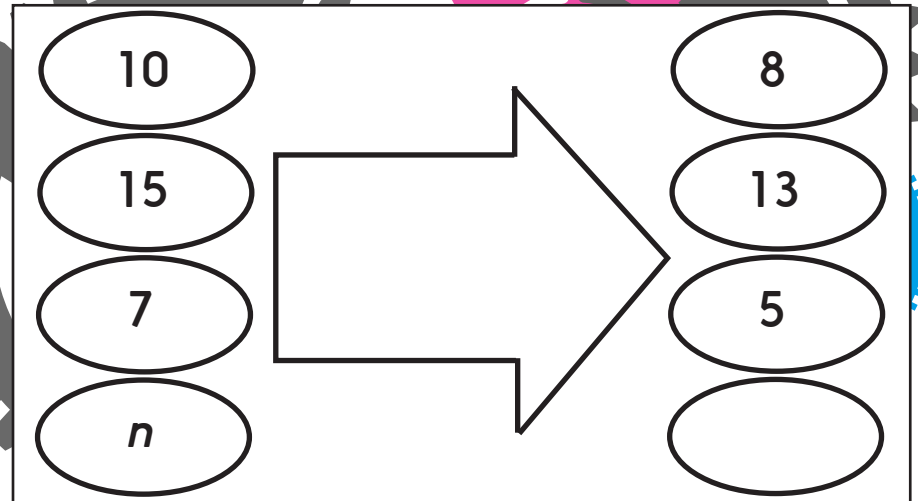
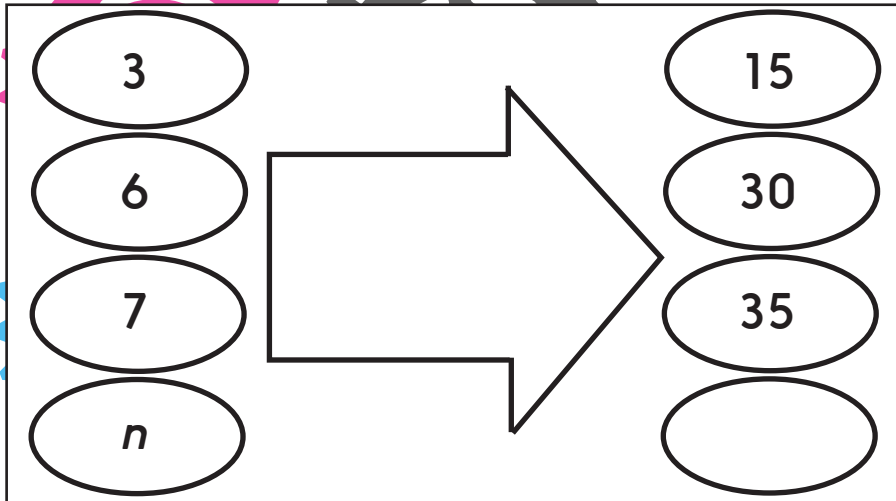


Garden sketch



Function machines 1

Work out what each function machine does. Write the output when n is the input.



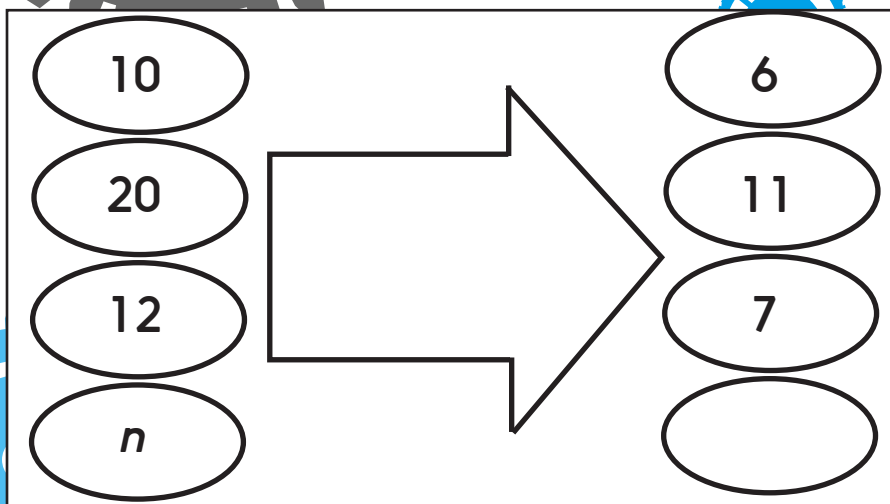
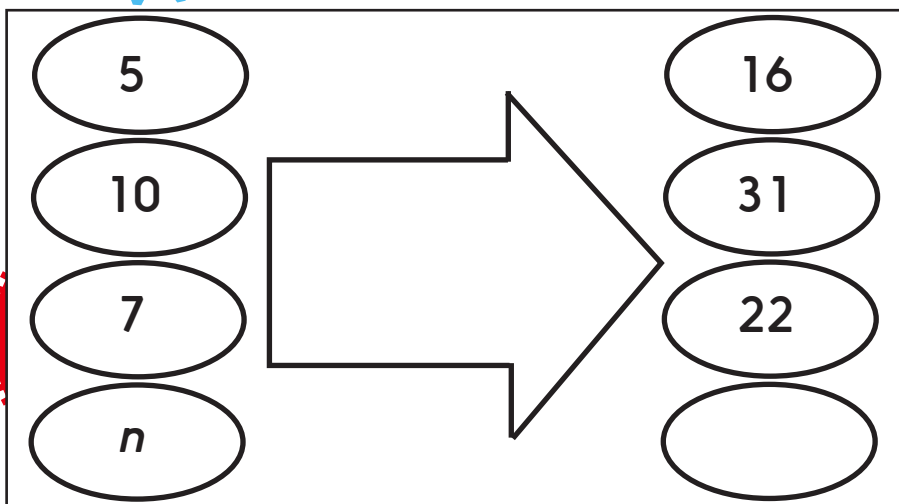
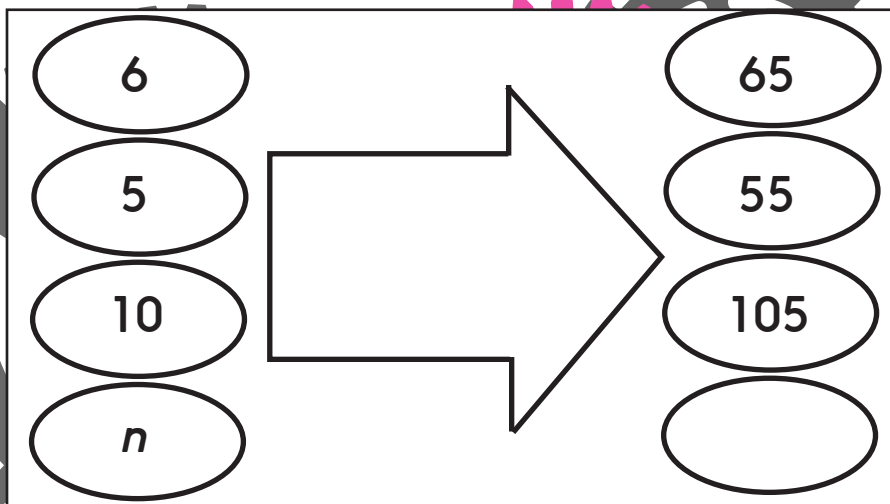
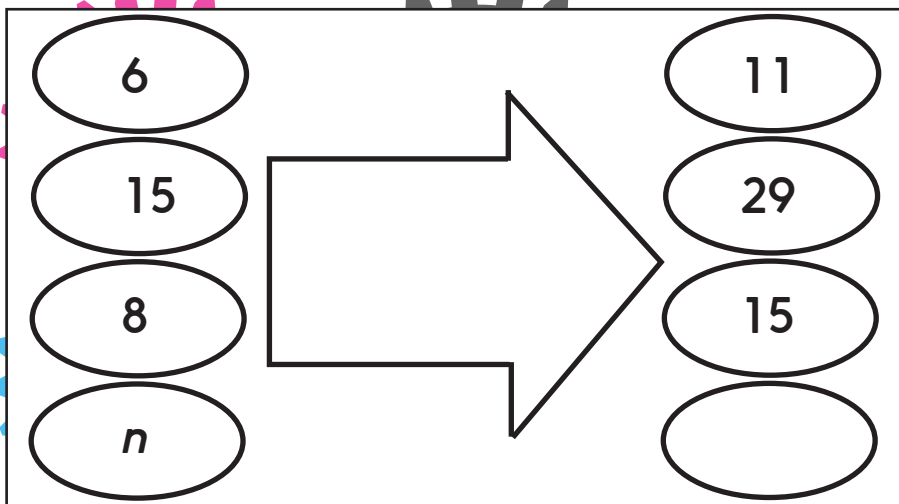
Write a formula

Discuss how these prices/amounts would be worked out with a partner, and then write a formula using n . Make $n=5$ in each example to see if the answer makes sense using your formula.

1. Stamps cost 52p each. The cost of n stamps is...
2. The number of wheels on n cars is...
3. The number of months in any number of years is...
4. For n fence panels, ... fence posts are needed.
5. The change from £10 after buying n apples at 25p each is...
6. The time to cook a chicken weighing n kg, at 45 minutes per kilogram and 20 minutes extra is...
7. The distance travelled when a bike wheel turns 20 times and the circumference of the wheel is n , is...
8. The price of an item costing n pounds after VAT of 20% added.

Function machines 2

Work out what each function machine does. Write the output when n is the input.



Challenge

Create your own two step function machine. Choose 3 inputs and find their outputs, swap with a partner. Can you discover each other's secret function?

Sequences

Work with your partner to find the 10th, 100th, then the n th term for each sequence.

1. 4, 8, 12, 16, 20...
2. 5, 9, 13, 17, 21...
3. 5, 10, 15, 20, 25...
4. 4, 9, 14, 19, 24...
5. 6, 11, 16, 21, 26...
6. 10, 20, 30, 40, 50...
7. 12, 22, 32, 42, 52...
8. 8, 18, 28, 38, 48...