On the following pages you will see photographs of 6 bars of chocolate and how they have been divided into smaller sections.
Also there is a chart which tells you the manufacturer's name, cost, weight, length and width of each bar. All this information is true!
Later in the booklet there are Resource Pages which show diagrams of how each bar has been divided.

But first a little code question.

$$\begin{array}{r} K\ I\ T \\ +\ K\ A\ T \\ \hline B\ A\ R \\ \hline \end{array}$$

Each letter represents a number.
How many different solutions can you find for this problem?

1.

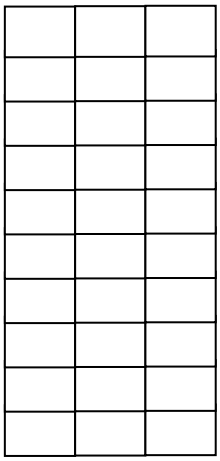
2.

3.

4.

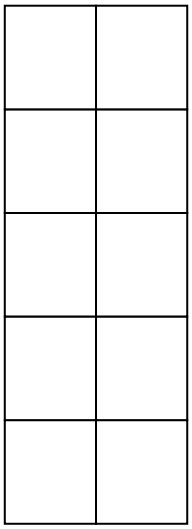
Here are photographs and diagrams of 6 different bars of chocolate.

7cm



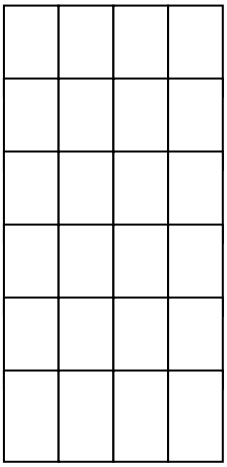
15cm

8.5

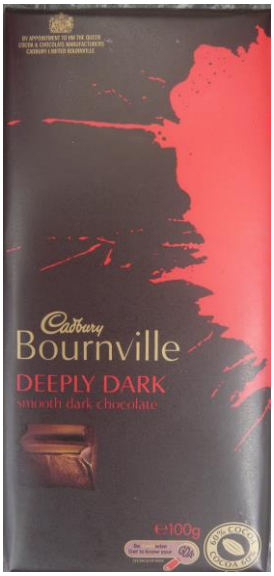


21.5

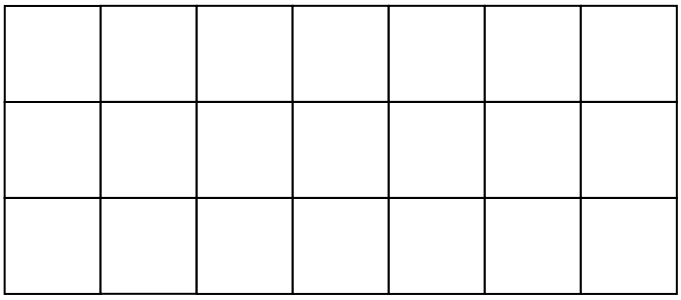
7.2



15 cm

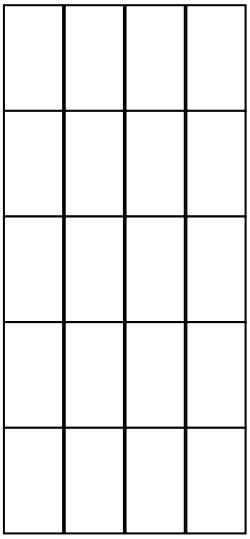


16.4cm



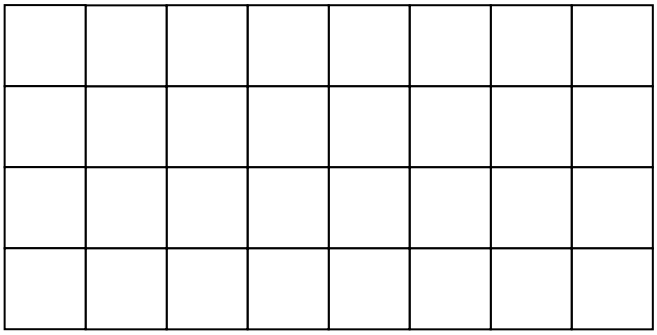
8.3cm

7cm



15.5cm

15.5cm



7cm

Here is the information about each bar of chocolate. The % figures represent the amount of cocoa solids in each bar – the greater the percentage the more pure the chocolate.

Brand	Cost	Weight	Length(cm)	Width(cm)
Lidl –dark 70%	99p	125g	21.5	8.5
Green & Black - dark 85%	£1.68	100g	15	7
Fairtrade – dark 70%	£1.19	100g	15	7.2
Cadbury – Dairy Milk 20%	99p	150g	16.4	8.3
Tesco – 50%	54p	175g	8.5	18
Bourneville – dark 60%	£1.03	100g	7	15.5

For each bar of chocolate can you…….

1. Work out the area and perimeter.
2. Work out the area and perimeter of one small piece.
3. Work out the weight of just one small piece
4. Work out how much a square metre of each bar of chocolate would weigh and how much would it cost.
5. Work out what percentage of each bar is not chocolate.
6. List the bars in order of value – the most expensive first, the least expensive last for 1kg of chocolate.
7. Work out how many ways you could share each bar of chocolate between different numbers of people.
8. Work out how many different ways you could divide each bar into two separate pieces whilst using only the lines shown.

My answers

	Lidl	Green & Black	Fairtrade	Cadbury	Tesco	Bourneville
Area of bar						
Perimeter of bar						
Area of one piece						
Perimeter of one piece						
Weight of one piece						
Weight of 1 sq metre						
Cost of 1 sq metre						
% not cocoa solids						

Question 6 - value of bars

Most expensive……

Least expensive…….

Is the cheapest bar the one you would to choose to buy? Yes or No. Give reasons for your choice.

Question 7

Work out how many ways you could share each bar of chocolate between different numbers of people

Lidl

Green & Black

Fairtrade

Cadbury

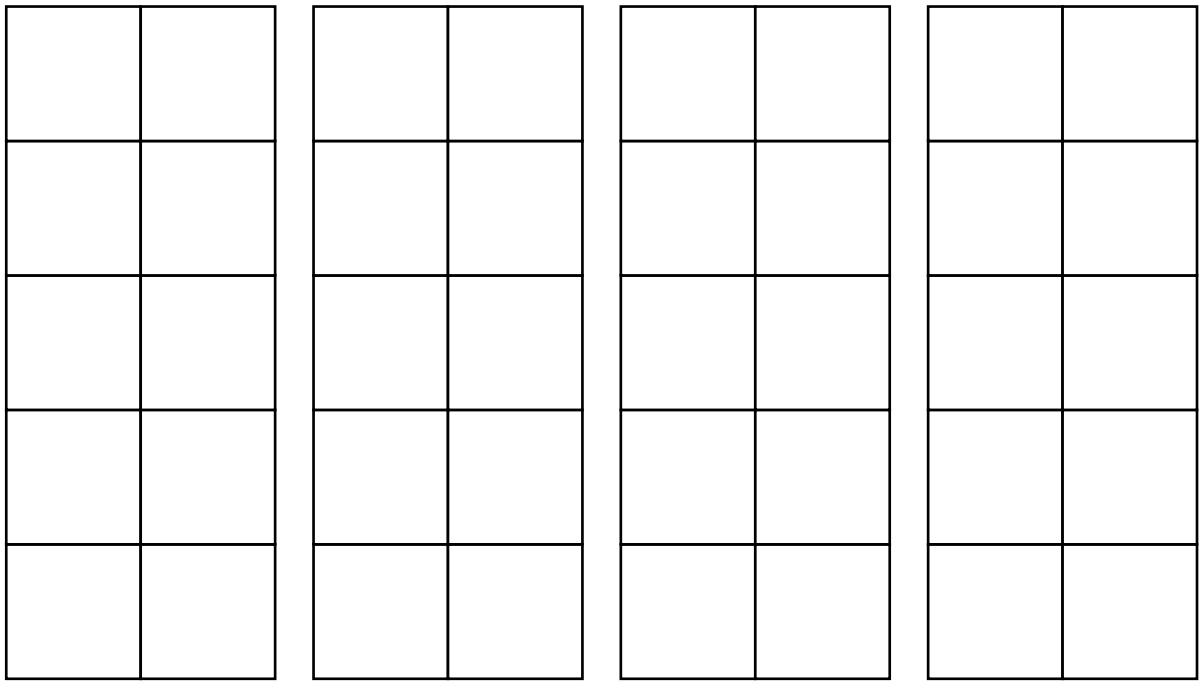
Tesco

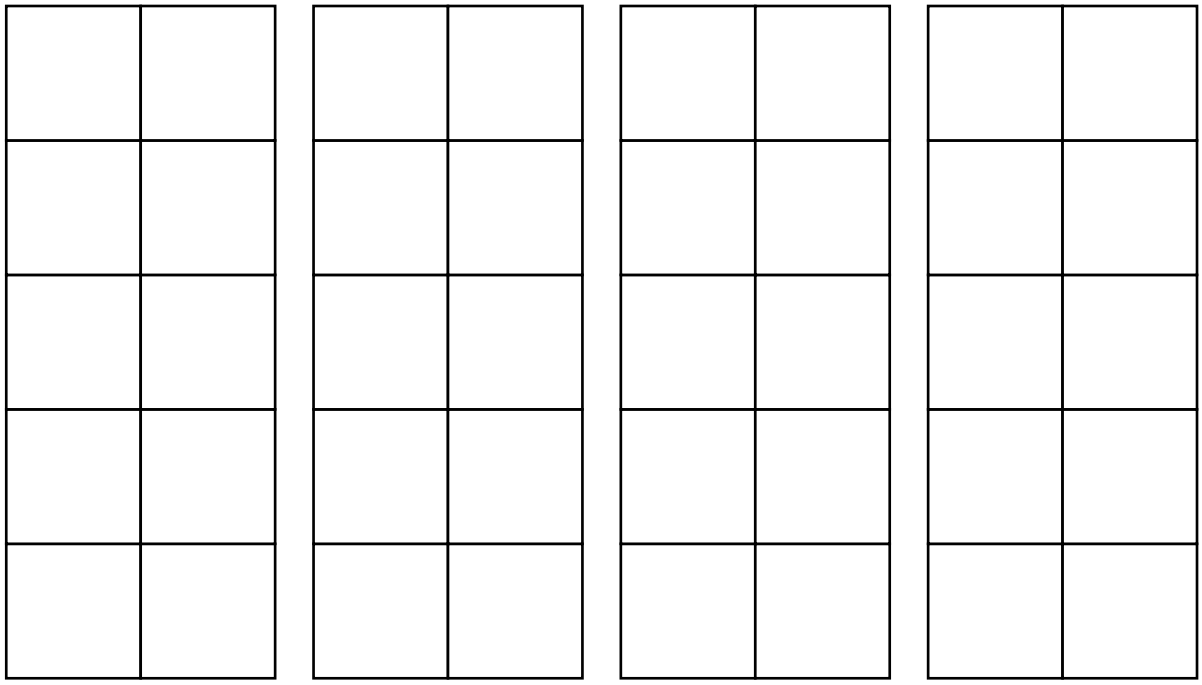
Bourneville

Question 8

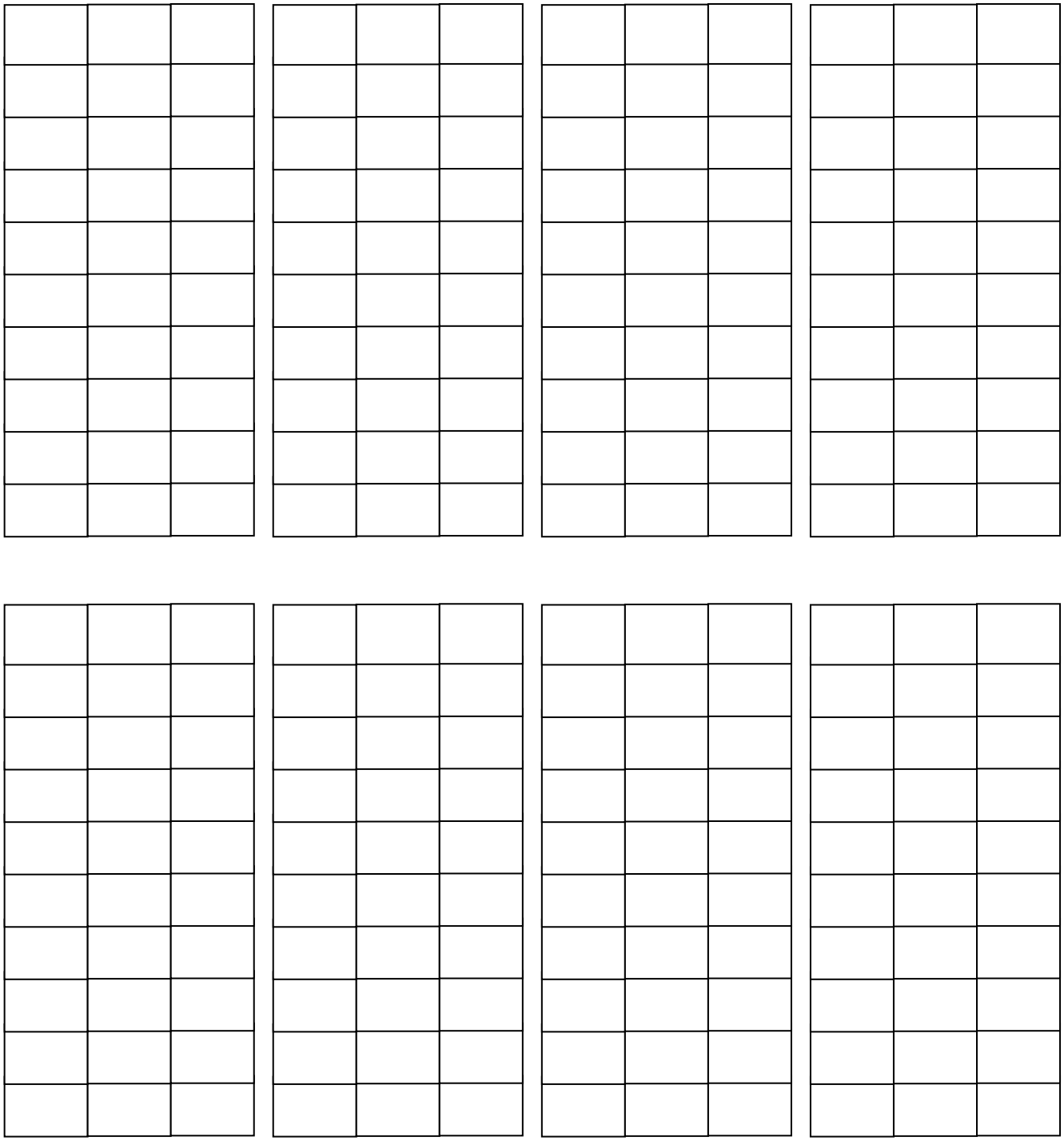
Work out how many different ways you could divide each bar into two separate pieces whilst using only the lines shown

Lidl

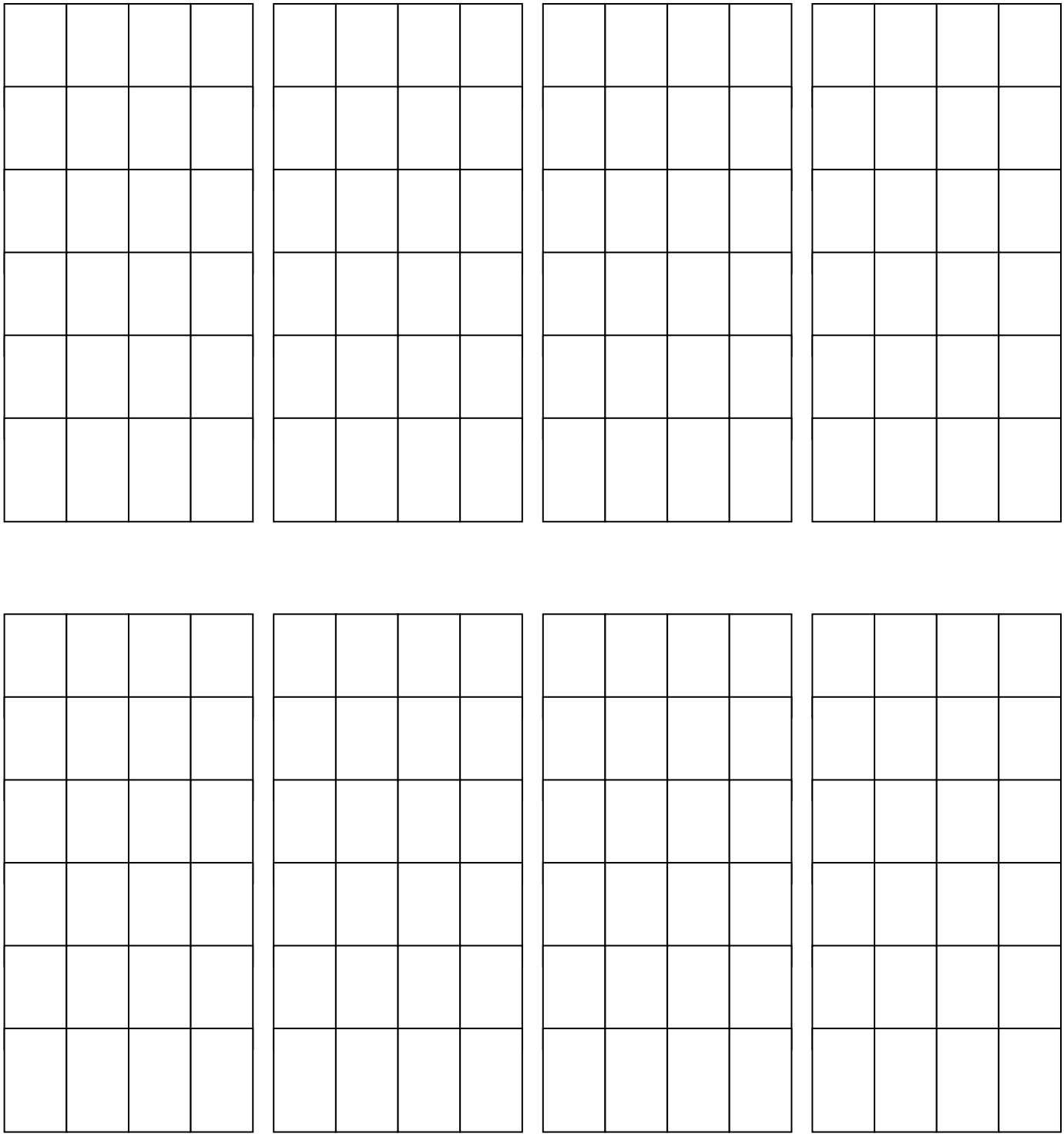




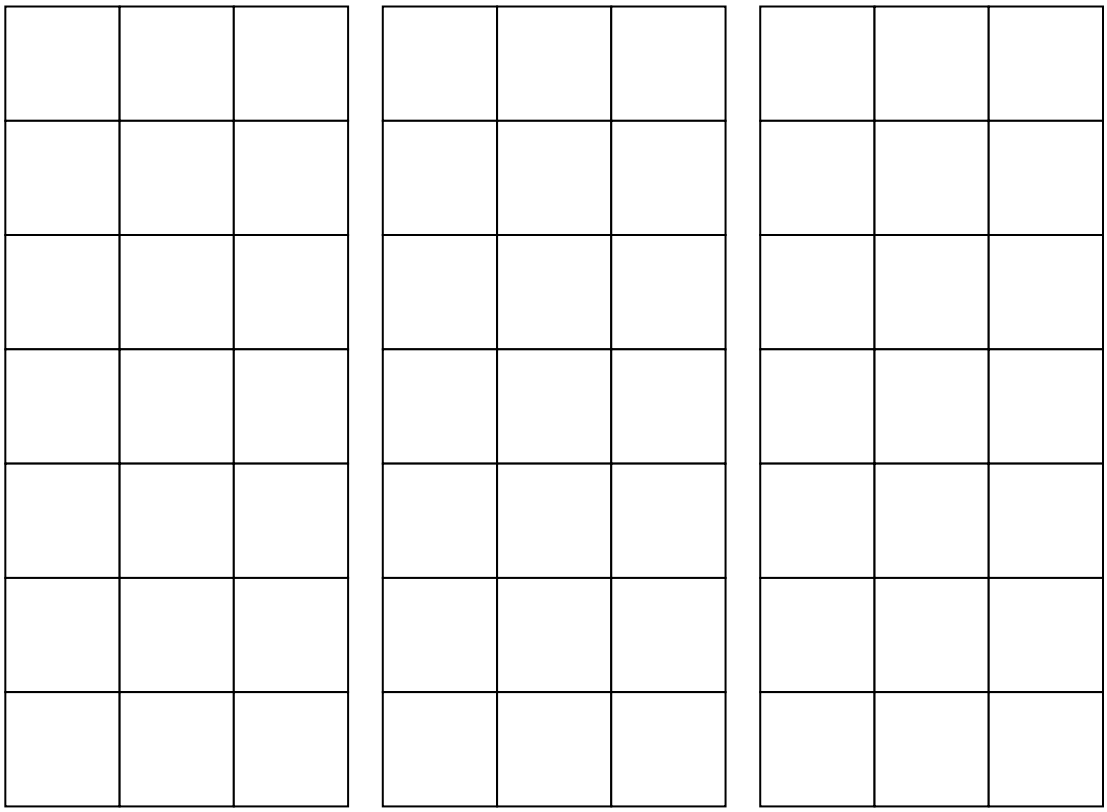
Green & Black

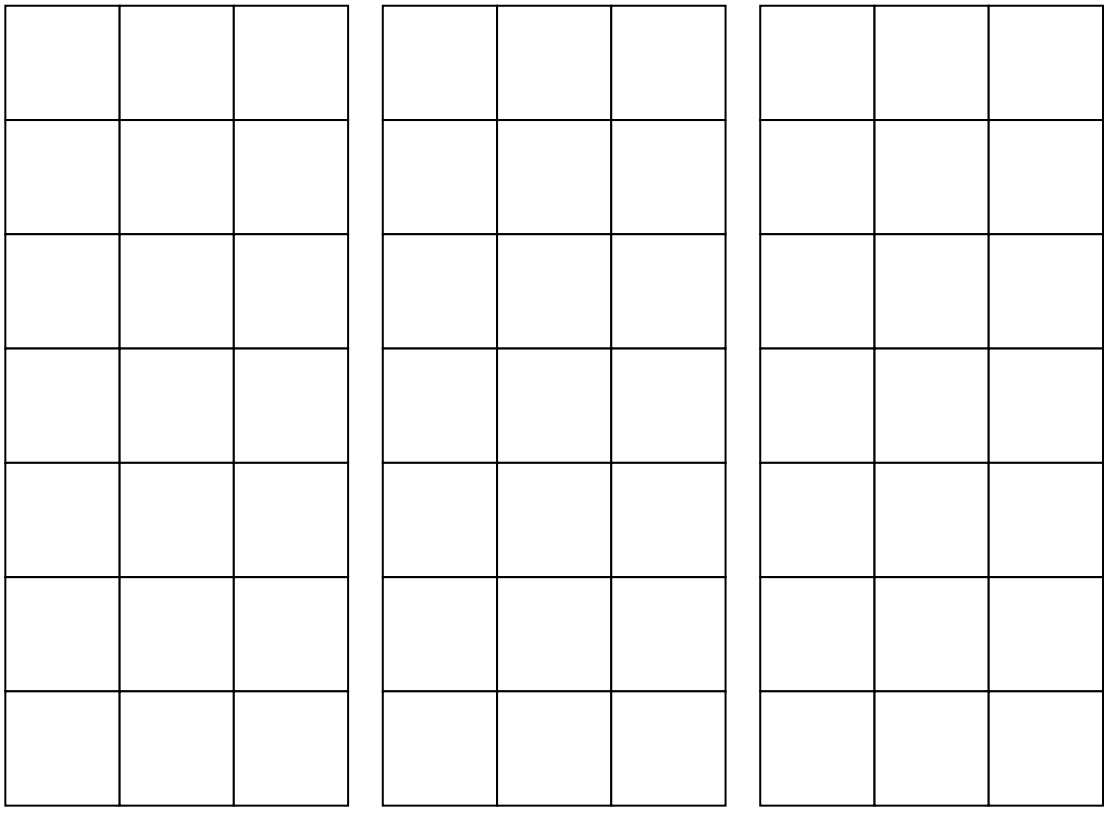


Fairtrade

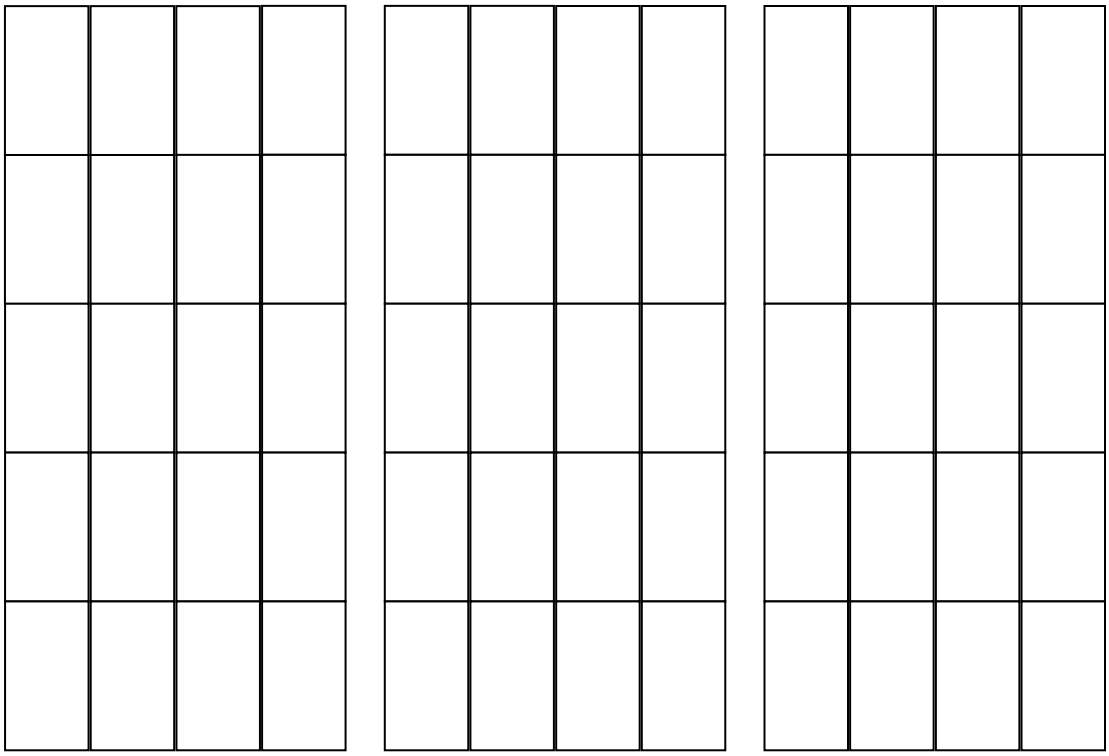


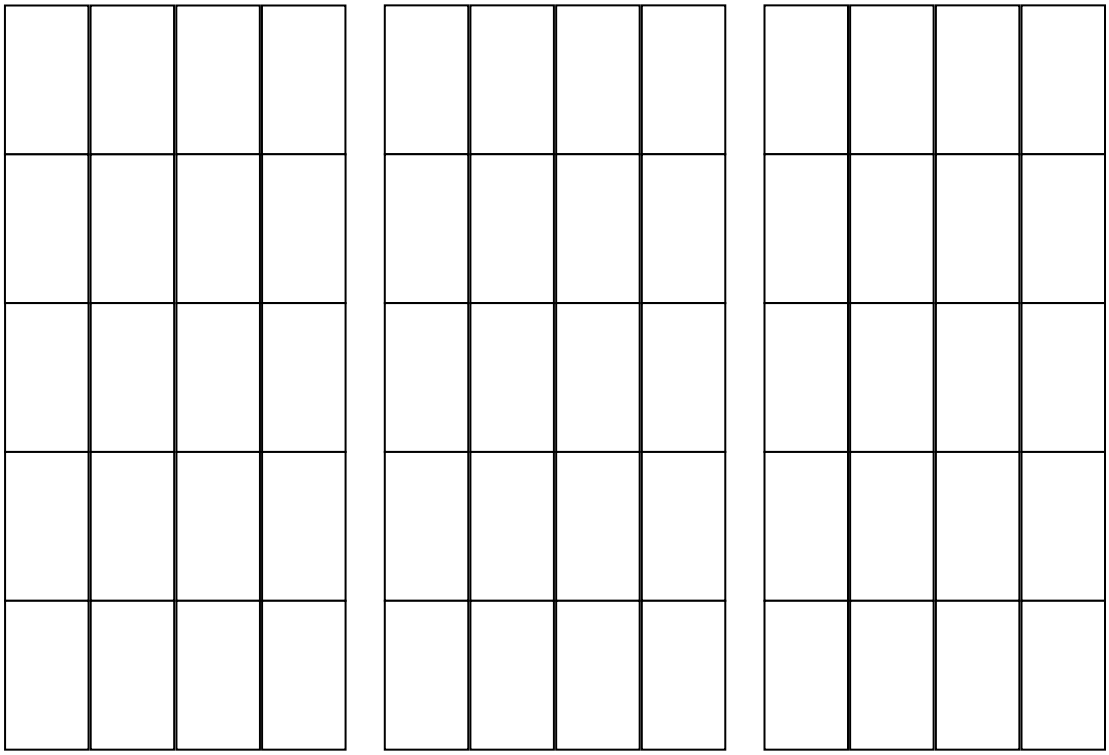
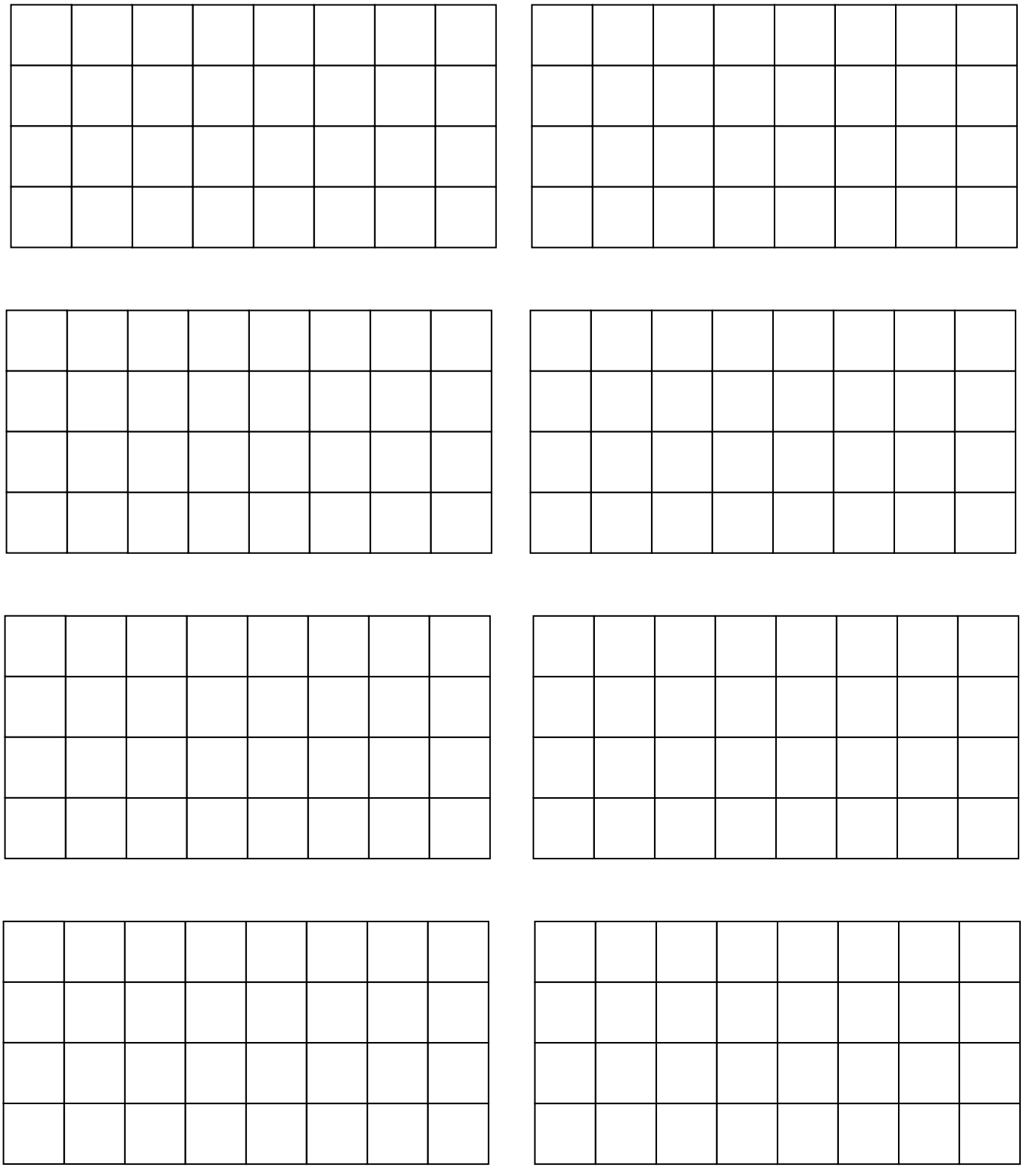
Cadbury





Bourneville





Tesco