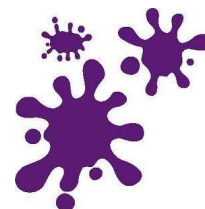# *Proportional Division*

1. Eric and Steven split a restaurant bill in the ratio 3 : 2.
   The total for the bill was £32.75.
   How much would they each pay?

2. To make a shade of purple paint, blue paint is mixed with red paint in the ratio 4 : 3.
   A painter needs 20litres of purple paint.
   How much of each paint should he buy?

3. There are 720 pupils in a high school.
   The ratio of boys to girls is 4 : 5.
   Calculate how many boys and how many girls there are.

4. A packet of sweets contains 48 sweets altogether.
   They are split in the ratio 5 : 3, green to red.
   How many of each sweet would there be?

5. In a box of 80 tomoatoes, some are ripe and some are not.
   The ratio of ripe to unripe is 3 : 1.
   How many ripe tomatoes are there?

6. A survey asked 500 gamers what they preferred; Xbox or Playstation.
   The results **favoured Playstation** in the ratio 5 : 3.
   How many people chose each console?

7. 32 pupils go on a school trip.
   The ratio of girls to boys is 5 : 3.
   How many girls went on the trip?

8. In a Science test sat by 18 pupils, the ratio of passes to fails was 7 : 2.
   How many people passed the test?

9. Janet and Maureen are going to split a prize of £45 between them in the ratio 3 : 2.
   How much would they each get?

10. In Chemistry, 217g of a compound is formed by mixing Carbon and Magnesium in the ratio 4 : 3.
How much of each element is needed?

11. 408 people were asked if they preferred tea or coffee.
The ratio who chose tea to coffee was 6 : 11.
How many chose coffee?

12. To make diluting juice, concentrate is mixed with water in the ratio 2 : 7.
Jamie needs 70 litres of juice for a sports day.
(a) How much concentrate would he need?
(b) Juice can only be bought in 1 litre bottles. How many bottles will he need?

13. A triathlon event consists of three heats; cycling, running and swimming.
The distance of each heat is split in the ratio 5 : 2 : 1.
The total distance of the triathlon is 62.4km.
(a) Calculate the distance travelled in each heat.
(b) Eric took 1hr 30mins to complete the cycling stage.
What was Eric's average cycling speed?
(c) Sally completed the swimming section with an average speed of
6.24km/h. How long did Sally take in hrs and mins?