Unequal sharing and grouping   Resource sheet 1

For each question, decide if it is a ratio problem (comparing two different amounts), or a proportion problem (comparing parts to a whole).

1 Matt and Tom collect football cards. For every 7 cards Matt has, Tom has 6. If Matt has 84 cards, how many does Tom have?

2 Elsa and Sarah are collecting money for charity.
For each £2 Elsa collects, Sarah collects £3. Sarah has collected £45.
How much has Elsa collected?

3 36 pupils in Year 6 are going on a trip next week.
$\frac{5}{6}$ of the class has remembered to bring in their signed permission slip.
How many pupils remembered their signed permission slip?

4 There are 105 pupils in Year 11. $\frac{3}{7}$ of the Year 11 pupils walk to school.

How many pupils walk to school?

5 In a recent survey, three-quarters of teenagers preferred pizza to other foods. 160 people responded to the survey. How many teenagers preferred pizza?

6 James has two kinds of shirts: red shirts and blue shirts.
He prefers the red shirts, so for every 6 red shirts, he has 2 blue shirts.
James has 24 blue shirts. How many red shirts does he have?

Unequal sharing and grouping   Resource sheet 2

For each question, decide if it is a ratio problem (comparing two different amounts), or a proportion problem (comparing parts to a whole).

1 Matt and Tom collect football cards. For every 7 cards Matt has, Tom has 6. If Matt has 84 cards, how many does Tom have?

2 Elsa and Sarah are collecting money for charity.
For each £2 Elsa collects, Sarah collects £3. Sarah has collected £45.
How much has Elsa collected?

3 36 pupils in Year 6 are going on a trip next week.
$\frac{5}{6}$ of the class has remembered to bring in their signed permission slip.
How many pupils remembered their signed permission slip?

4 There are 105 pupils in Year 11. $\frac{3}{7}$ of the Year 11 pupils walk to school.

How many pupils walk to school?

5 In a recent survey, three-quarters of teenagers preferred pizza to other foods. 160 people responded to the survey. How many teenagers preferred pizza?

6 James has two kinds of shirts: red shirts and blue shirts.
He prefers the red shirts, so for every 6 red shirts, he has 2 blue shirts.
James has 24 blue shirts. How many red shirts does he have?

7 There 45 pupils in Year 6.

$\frac{2}{5}$ of them walk to school.

How many pupils do **not** walk to school?

8 Charlie and Aidan are counting their books.

For every 4 books Charlie has, Aidan has 6.

There are 90 books in total.

How many books does Charlie have?

9 Julie and Cameron are making fairy cakes for a cake stall.

There are three times as many chocolate cakes as blueberry cakes.

If there are 40 cakes in total, how many are chocolate?