

## Fractions, Percentages and Ratio Worded Problems

**(a)**

Elia has 10 hours of free time per week. She spends  $\frac{7}{20}$  of her free time doing homework. She spends 4 hours per week watching TV and films. The rest of her free time is split between football and hockey in the ratio 3 : 2. Find the percentage of her free time Elia spends on football.

**(b)**

Theo receives £1800 in wages each month. He spends  $\frac{1}{4}$  of his wages on rent. He spends  $\frac{5}{12}$  of his wages on bills and food. The amount of money he spends on bills and food is split in the ratio 7 : 3. Find the amount Theo spends on rent and food as a percentage of the total wages he received.

**(c)**

A school contains 910 students. The ratio of boys to girls is 4 : 3. 15% of the boys are left-handed and  $\frac{2}{15}$  of the girls are left-handed. Find the percentage of students in the school that are left-handed. Give your answer to 1 decimal place.

**(d)**

On a farm there are pigs, cows, sheep and goats.  $\frac{2}{9}$  of the animals are pigs and 35% of the animals are cows. The remaining sheep and goats are in the ratio 4 : 3. If there are 189 cows on the farm, find the total number of goats and pigs the farm.