

Homework Sheet - Ratio & Proportion

- Simplify these ratios:
a) 3:12 b) 15:5 c) 18:24 d) 30:15:10
- Bill and Jill share a jar of sweets between them in the ratio 2:3.
What **fraction** of the jar of sweets does Bill receive?
- Rowan and Jordan win a money prize in a competition. Rowan receives $\frac{3}{4}$ of it.
In what ratio is the prize split?
- Andy and Al set up a cake shop at school. Andy contributes £10 and Al £20 to start with. The profits will be shared out in the same ratio as the money they contribute.
a) In the first week they make a £36 profit. How much does each receive?
b) In the second week Al receives £51. What is their total profit in the second week?
- Rob's chicken eats a mixture of pellets, corn and grit each day in the ratio 10:4:1. The total weight of feed per day is 150g.
a) What total weight of pellets should he put out each day?
b) Rob buys 3 more chickens. What weight of corn should he put out each day now?
- At a farmer's market a dozen eggs from a local farm cost £2.28.
How much would 9 eggs cost?
- A library shared some spare books between two local primary schools. St. Peter's received 320 books and Tree Hill School received 20% fewer.
In what ratio were the books shared out between the two schools? Give your answer in its simplest form.
- Mick the milkman fills his crates with 1 litre and 2 litre containers of milk in the ratio 3:5
He has 180 2-litre containers in total.
a) How many 1 litre containers does he have?
b) How many litres of milk does he have altogether?
- Greg's lawn mower is fuelled by a mix of petrol and oil in the ratio 16:1.
He puts 480ml of petrol in. How much oil should he mix in?
- A permanent hair colorant mixes 10ml of cream with 25ml of emulsion.
a) What is the ratio of cream to emulsion? Give your answer in its simplest form.
b) To make 140ml in total, what quantity of emulsion is needed?
- A box of 500 pencils costs £45. What is the cost of 30 pencils?