

Ratio and proportion problem-solving

MODULE 4 · RATIO AND PROPORTION NUMBER

HOW TO ANSWER TODAY

- **Share in a ratio.** Add the ratio parts. Divide the total by that number to find ONE part. Multiply each ratio number by it.
Share €90 in 2:3 → 5 parts, $€90 \div 5 = €18$ per part → €36 and €54
- **Discount / increase.** Work out the percent of the price, then take it off (discount) or add it on (increase).
€80 with 15% off → 15% of €80 = €12 → €80 - €12 = €68
- **Fraction of a quantity.** Divide the quantity by the bottom number (denominator). Multiply by the top number (numerator).
 $\frac{3}{5}$ of 20 → $20 \div 5 = 4$, $\times 3 = 12$

STRETCH PROBLEMS

- 5th class raise €100 at the school bake sale to put towards their class trip. They share the money between buns, brownies and rocky road in the ratio 2:3:5 to plan next week's bake. How much money goes to each item?
- A new bird-feeder kit for the classroom window costs €200 at the garden centre. Cian sees a sign saying all bird-feeder kits are reduced by 15% this week. What is the new price?
- A picnic hamper for the 5th class trip costs €180 at the local Centra deli. The shop gives the class a 15% discount because they are ordering for a school event. What is the new price of the hamper?
€180 is reduced by 15%. What is the new price?
- There are 132 pupils in 5th and 6th class altogether at the school in Galway. On Monday morning the teachers note that $\frac{7}{12}$ of the pupils have signed up for the Cumann na mBunscol blitz on Friday. How many pupils have signed up?
What is $\frac{7}{12}$ of 132?
- 5th class have €120 to spend on decorations for World Book Day. They split the money between bunting, posters and book covers in the ratio 2:3:5. How much do they spend on each?
Share €120 in the ratio 2:3:5.