

Ratio and proportion problem-solving

WHAT THIS LESSON TEACHES

To solve ratio problems add the parts to find the total, work out one part then build each share. Choose sharing for totals split by ratio, unitary when finding one then multiply, or scaling to change amounts.

- Share 36 cookies in 4:5: 9 parts, one part 4 cookies so 16 and 20.
- A recipe for 3 uses 5 strawberries, scale by 4 for 12 people.

MODEL THIS ON THE BOARD

SHARING 36 COOKIES IN RATIO 4:5

- 1 Add the parts of the ratio: 4 plus 5 equals 9 parts.
- 2 Work out one part: 36 divided by 9 equals 4 cookies per part.
- 3 Build each share: 4 parts is 16 cookies and 5 parts is 20 cookies.

DISCUSSION STARTER

REFLECT When is a ratio more useful than a fraction for describing a situation?

ANSWER KEY

Scaffold: visual check on the page

Q1: 24 apples and 16 apples

Q2: 24 euro

Q3: 24 carrots

Q4: 36 euro

a) Always — This is the first step in the sharing method.

b) Always — You find the cost of one then multiply.

c) Always — Scaling multiplies every ingredient by the same factor.

d) Always — The skill is picking the right tool for the numbers given.