

Sharing in a ratio

CURRICULUM ALIGNMENT

NUM.FRC.4b investigate proportionality and ratios of quantities (sets).

NUM.OPS.4 build upon, select and make use of a range of operation strategies.

INTERACTIVES Ratio Bars · challenge, display, explore

WHAT THIS LESSON TEACHES

To share an amount in a ratio, add the parts to find how many equal parts there are in total. Divide the whole amount by that total to find one part, then multiply by each number in the ratio.

→ Share €30 in 2:3: $2+3=5$ parts, $€30 \div 5 = €6$ each part, so €12 and €18.

→ Share €60 in 1:5: $1+5=6$ parts, $€60 \div 6 = €10$ each part, so €10 and €50.

MODEL THIS ON THE BOARD

SHARE €50 IN 2:3

- 1 Add the parts of the ratio: $2 + 3 = 5$ parts altogether.
- 2 Divide the total by the number of parts: $€50 \div 5 = €10$ for one part.
- 3 First person gets $2 \times €10 = €20$. Second person gets $3 \times €10 = €30$.

ANSWER KEY

Scaffold: visual check on the page

Q1: €27 and €45

Q2: €28 and €42

Q3: €10 and €50

Q4: €40 and €60

a) Always : The parts 2 and 3 add to 5, so you always find one part by dividing by 5.

b) Always : One part times 4 is always four times one part times 1.

c) Never : The parts are unequal: €15 and €25.

d) Always : You always need the total number of parts before you can divide.

EXTENSION SHEET · STRETCH ANSWERS

S1: $20 + 50$

S2: $5 + 10 + 20$