

RATIO SHARING & PERCENTAGES

Best Guess Mastery Worksheet (Target Grade 4/5)

I Do

Alex, Ben, and Chloe share £140 in the ratio 2 : 5 : 3.

Work out how much money Ben receives.

We Do

Zoe, Keeley, and Paige share £240 in the ratio 3 : 4 : 5.

Work out how much money Keeley receives.

RATIO SHARING & PERCENTAGES**Best Guess Mastery Worksheet (Target Grade 4/5)****You Do 1**

John, Paul, and Mark share £320 in the ratio 5 : 2 : 1.

Work out how much money John receives.

You Do 2

Emily, Anna, and Anne share £450 in the ratio 4 : 5 : 6.

Work out how much money Anna receives.

RATIO SHARING & PERCENTAGES**Best Guess Mastery Worksheet (Target Grade 4/5)****Challenge 1**

Katie and Tom share £150 in the ratio 3 : 7.

Tom gives 20% of his share to charity.

How much money does Tom have left?

Challenge 2

Catherine, Steve, and Sarah share £400 in the ratio 2 : 3 : 5.

Steve spends 40% of his share on a new bike.

Sarah spends 15% of her share on books.

Work out the total amount of money Steve and Sarah have remaining from their shares.

RATIO SHARING & PERCENTAGES**Best Guess Mastery Worksheet (Target Grade 4/5)****Challenge 3**

Sophie and Zoe share a bonus of £500 in the ratio 3 : 2.

Sophie's share increases by 10% the following year.

Zoe's share increases by 25% the following year.

Who has the larger amount the following year and by how much?

Practice Perfect (1)

Keeley, Paige, and Anne share £180 in the ratio 1 : 2 : 6.

Work out how much money Paige receives.

RATIO SHARING & PERCENTAGES**Best Guess Mastery Worksheet (Target Grade 4/5)****Practice Perfect (2)**

John and Emily share £210 in the ratio 4 : 3.

Emily spends 30% of her share.

How much money does she have left?

Practice Perfect (3)

Mark, Steve, and Sarah share £360 in the ratio 2 : 3 : 7.

Work out how much more money Sarah receives than Mark.

Answers & Worked Solutions

I Do:

$$\text{Total parts} = 2 + 5 + 3 = 10$$

$$1 \text{ part} = 140 \div 10 = \text{£}14$$

$$\text{Ben gets 5 parts} = 5 \times 14 = \text{£}70$$

We Do:

$$\text{Total parts} = 3 + 4 + 5 = 12$$

$$1 \text{ part} = 240 \div 12 = \text{£}20$$

$$\text{Keeley gets 4 parts} = 4 \times 20 = \text{£}80$$

You Do 1:

$$\text{Total parts} = 5 + 2 + 1 = 8$$

$$1 \text{ part} = 320 \div 8 = \text{£}40$$

$$\text{John gets 5 parts} = 5 \times 40 = \text{£}200$$

You Do 2:

$$\text{Total parts} = 4 + 5 + 6 = 15$$

$$1 \text{ part} = 450 \div 15 = \text{£}30$$

$$\text{Anna gets 5 parts} = 5 \times 30 = \text{£}150$$

Challenge 1:

$$\text{Total parts} = 10. 1 \text{ part} = \text{£}15.$$

$$\text{Tom's share} = 7 \times 15 = \text{£}105.$$

$$\text{Tom gives 20\% to charity: } 0.20 \times 105 = \text{£}21.$$

$$\text{Amount left} = 105 - 21 = \text{£}84$$

Challenge 2:

$$\text{Total parts} = 10. 1 \text{ part} = 400 \div 10 = \text{£}40.$$

$$\text{Steve's share} = 3 \times 40 = \text{£}120. \text{ Sarah's share} = 5 \times 40 = \text{£}200.$$

$$\text{Steve spends 40\%: } 0.40 \times 120 = \text{£}48. \text{ Steve remaining} = 120 - 48 = \text{£}72.$$

$$\text{Sarah spends 15\%: } 0.15 \times 200 = \text{£}30. \text{ Sarah remaining} = 200 - 30 = \text{£}170.$$

$$\text{Total remaining} = 72 + 170 = \text{£}242$$

Challenge 3:

$$\text{Total parts} = 5. 1 \text{ part} = 500 \div 5 = \text{£}100.$$

$$\text{Sophie} = \text{£}300. \text{ Zoe} = \text{£}200.$$

$$\text{Sophie next year: } 300 \times 1.10 = \text{£}330.$$

$$\text{Zoe next year: } 200 \times 1.25 = \text{£}250.$$

$$\text{Sophie has the larger amount by } \text{£}80 \text{ (} 330 - 250 \text{)}.$$

Practice Perfect (1):

Total parts = 9. 1 part = $180 \div 9 = \text{£}20$.

Paige gets 2 parts = $2 \times 20 = \text{£}40$

Practice Perfect (2):

Total parts = 7. 1 part = $210 \div 7 = \text{£}30$.

Emily gets 3 parts = $\text{£}90$.

Emily spends 30%: $0.30 \times 90 = \text{£}27$.

Amount left = $90 - 27 = \text{£}63$

Practice Perfect (3):

Total parts = 12. 1 part = $360 \div 12 = \text{£}30$.

Sarah gets 7 parts = $\text{£}210$. Mark gets 2 parts = $\text{£}60$.

Difference = $210 - 60 = \text{£}150$