Harder Ratio Problems

1. Share £54 in the ratio 3:5.

2. Share 4.095kg in the ratio 1:3:5.

3. Orange fizz is made by mixing orange juice and lemonade in the ratio 2:5. Janice has two litres of lemonade. How much orange juice should she add?

4. Carleigh, Ryan and Zack share some money in the ratio 5:3:1. If Ryan's share is £187.50, how much money do they share in total?

5. Lemon fizz is made by mixing lemon juice and lemonade in the ratio 1:9. Kacey wants to make six litres of lemon fizz. She has five and a half litres of lemonade and 500ml of lemon juice. Does she have enough to make six litres of lemon fizz?

6. Joe and Suzy share some money in the ratio 2:5. If Suzy gets £30 more than Joe, how much does Joe receive?

7. Karin and Scott share some money in the ratio 7:3. If Karin gets £20 more than Scott, how much money do they share?

8. Leaane and Liam share some pizza in the ratio 1:2. If Leanne receives 3 slices less than Liam, how many slices did they start with?

9. Mo and Jamil share some money in the ratio 3:5. If Jamil receives £25, how much does Mo receive?

10. Max and Marlene share some money in the ratio 3:7. If Max receives £500 less than Marlene, how much money did they share?

Harder Ratio Problems **Answers**

1. Share £54 in the ratio 3:5.

    3 + 5 = 8

    54 ÷ 8 = £6.75

    6.75 × 3 = £20.25

    £6.75 × 5 = £33.75

    £20.25:£33.75

2. Share 4.095kg in the ratio 1:3:5.

    1 + 3 + 5 = 9

    4.095 ÷ 9 = 0.455kg

    0.455 × 1 = 0.455kg

    0.455 × 3 = 1.365kg

    0.455 × 5 = 2.275kg

    0.455kg:1.365kg:2.275kg

3. Orange fizz is made by mixing orange juice and lemonade in the ratio 2:5. Janice has two litres of lemonade. How much orange juice should she add?

    2 ÷ 5 = 0.4l

    0.4 × 2 = 0.8l or 800ml

4. Carleigh, Ryan and Zack share some money in the ratio 5:3:1. If Ryan's share is £187.50, how much money do they share in total?

    187.50 ÷ 3 = £62.50

    5 + 3 + 1 = 9

    62.50 × 9 = £562.50

5. Lemon fizz is made by mixing lemon juice and lemonade in the ratio 1:9. Kacey wants to make six litres of lemon fizz. She has five and a half litres of lemonade and 500ml of lemon juice. Does she have enough to make six litres of lemon fizz?

    1 + 9 = 10

    6 ÷ 10 = 0.6l

    Lemon juice = 0.6 × 1 = 0.6ml or 600ml

    Lemonade = 0.6 × 9 = 5.4l

    No, she has enough lemonade but not enough lemon juice to make 6 litres of lemon fizz.

6. Joe and Suzy share some money in the ratio 2:5. If Suzy gets £30 more than Joe, how much does Joe receive?

    5 – 2 = 3

    30 ÷ 3 = £10

    10 × 2 = £20

7. Karin and Scott share some money in the ratio 7:3. If Karin gets £20 more than Scott, how much money do they share?

    7 – 3 = 4

    20 ÷ 4 = £5

    7 + 3 = 10

    5 × 10 = £50

8. Leaane and Liam share some pizza in the ratio 1:2. If Leanne receives 3 slices less than Liam, how many slices did they start with?

    2 – 1 = 1

    3 ÷ 1 = 3 slices

    2 + 1 = 3

    3 × 3 = 9 slices

9. Mo and Jamil share some money in the ratio 3:5. If Jamil receives £25, how much does Mo receive?

    25 ÷ 5 = £5

    5 × 3 = £15

10. Max and Marlene share some money in the ratio 3:7. If Max receives £500 less than Marlene, how much money did they share?

    7 – 3 = 4

    500 ÷ 4 = £125

    3 + 7 = 10

    125 × 10 = £1250