2.80 Ratio Sharing when the Difference is Given: 1-hour Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Niamh and Kofi share some stickers in the ratio 9:14. Kofi gets 20 stickers more than Niamh. How many stickers does Kofi receive?

- [ ] A) 4
- [ ] B) 56
- [ ] C) 36
- [ ] D) 57
- [ ] E) 280

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2 A group divides a donation in the ratio 2:9. The larger share is £14 more than the smaller. What is the smaller share?

- [ ] A) £2
- [ ] B) £4
- [ ] C) £14
- [ ] D) £18
- [ ] E) £22

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3 Two children split apples in the ratio 3:6. The larger child has 15 more apples than the smaller. How many apples are there in total?

- [ ] A) 15
- [ ] B) 5
- [ ] C) 18
- [ ] D) 45
- [ ] E) 30

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4 Sam and Priya share sweets in the ratio 7:2. Sam has 35 more sweets than Priya. How many sweets does Sam have?

- [ ] A) 35
- [ ] B) 42
- [ ] C) 49
- [ ] D) 70
- [ ] E) 105

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5 Imogen and Yusuf share some stamps in the ratio 9:10. Yusuf gets 15 stamps more than Imogen. How many stamps are there altogether?

- [ ] A) 284
- [ ] B) 135
- [ ] C) 285
- [ ] D) 150
- [ ] E) 15

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6 A charity bake sale splits its profit between two classes in the ratio 2:7. The class with the larger share raises £20 more than the other class. How much does the larger-sharing class raise?

- [ ] A) £28
- [ ] B) £8
- [ ] C) £4
- [ ] D) £36
- [ ] E) £20

---

7 Ben and Maya share some money in the ratio 5:8. Maya gets £9 more than Ben. How much does Ben receive?

- [ ] A) £14.00
- [ ] B) £39.00
- [ ] C) £3.00
- [ ] D) £24.00
- [ ] E) £15.00

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8 A lottery syndicate splits a win between two members in the ratio 8:10. The member with the larger share receives £20 more than the other member. How much does the member with the smaller share receive?

- [ ] A) £80
- [ ] B) £10
- [ ] C) £180
- [ ] D) £20
- [ ] E) £100

---

9 Niamh and Callum share some money in the ratio 7:13. Callum gets £36 more than Niamh. How much does Callum receive?

- [ ] A) £79.00
- [ ] B) £78.00
- [ ] C) £6.00
- [ ] D) £42.00
- [ ] E) £120.00

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10 Kofi and Aisha share some conkers in the ratio 5:8. Aisha gets 21 conkers more than Kofi. How many conkers does Aisha receive?

- [ ] A) 35
- [ ] B) 57
- [ ] C) 168
- [ ] D) 56
- [ ] E) 7

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11 Two allotment holders share the cost of seed and compost in the ratio 2:6. The one who pays more pays £16 more than the other. How much does the one who pays more actually pay?

- [ ] A) £8
- [ ] B) £16
- [ ] C) £4
- [ ] D) £24
- [ ] E) £32

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12 Kwame and Esme share some badges in the ratio 5:7. Esme gets 10 badges more than Kwame. How many badges does Esme receive?

- [ ] A) 35
- [ ] B) 5
- [ ] C) 36
- [ ] D) 25
- [ ] E) 10

---

13 A group divides a donation in the ratio 2:9. The larger share is £28 more than the smaller. What is the smaller share?

- [ ] A) £4
- [ ] B) £8
- [ ] C) £16
- [ ] D) £18
- [ ] E) £36

---

14 Ffion and Aisha share some money in the ratio 4:5. Aisha gets £4 more than Ffion. How much does Aisha receive?

- [ ] A) £16
- [ ] B) £20
- [ ] C) £36
- [ ] D) £4
- [ ] E) £19

---

15 Two sisters share an inheritance in the ratio 4:6. The elder sister receives £2,400 more than the younger. Work out the smaller (younger) sister's share.

- [ ] A) £12000
- [ ] B) £2400
- [ ] C) £1200
- [ ] D) £7200
- [ ] E) £4800

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16 A charity bake sale splits its profit between two classes in the ratio 5:7. The class with the larger share raises £28 more than the other class. How much does the larger-sharing class raise?

- [ ] A) £168
- [ ] B) £28
- [ ] C) £14
- [ ] D) £98
- [ ] E) £70

---

17 Declan and Dylan share some shells in the ratio 2:3. Dylan gets 3 shells more than Declan. How many shells does Dylan receive?

- [ ] A) 6
- [ ] B) 3
- [ ] C) 15
- [ ] D) 10
- [ ] E) 9

---

18 A prize fund is shared between a school choir and a school orchestra in the ratio 2:7. The orchestra receives £30 more than the choir. How much does the orchestra receive?

- [ ] A) £12
- [ ] B) £6
- [ ] C) £42
- [ ] D) £30
- [ ] E) £54

---

19 Sana and Mei share some sweets in the ratio 3:5. Mei gets 10 sweets more than Sana. How many sweets does Sana receive?

- [ ] A) 25
- [ ] B) 15
- [ ] C) 5
- [ ] D) 30
- [ ] E) 40

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20 A charity bake sale splits its profit between two classes in the ratio 3:10. The class with the larger share raises £28 more than the other class. How much does the larger-sharing class raise?

- [ ] A) £40
- [ ] B) £4
- [ ] C) £12
- [ ] D) £28
- [ ] E) £52

---

21 Harry and Chloe share some money in the ratio 8:11. Chloe gets £15 more than Harry. How much does Harry receive?

- [ ] A) £39
- [ ] B) £55
- [ ] C) £40
- [ ] D) £15
- [ ] E) £5

---

22 Two Year 6 classes, 6R and 6S, collect recycling tokens for a class competition in the ratio 5:6. Class 6S collects 9 more tokens than Class 6R. How many tokens do the two classes collect altogether?

- [ ] A) 9
- [ ] B) 18
- [ ] C) 45
- [ ] D) 99
- [ ] E) 54

---

23 Oliver and Noah share some pencils in the ratio 1:2. Noah gets 6 pencils more than Oliver. How many pencils does Noah receive?

- [ ] A) 11
- [ ] B) 12
- [ ] C) 13
- [ ] D) 18
- [ ] E) 6

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24 Two cousins share a birthday gift of money from their grandparents in the ratio 2:5. The cousin with the larger share receives £30 more than the other cousin. How much does the cousin with the smaller share receive?

- ☐ A) £10
- ☐ B) £50
- ☐ C) £30
- ☐ D) £70
- ☐ E) £20

---

25 Anya and Niamh share some money in the ratio 3:5. Niamh gets £18 more than Anya. How much money are there altogether?

- ☐ A) £73.00
- ☐ B) £18.00
- ☐ C) £72.00
- ☐ D) £9.00
- ☐ E) £27.00

---

26 Kofi and Declan share some plants in the ratio 1:4. Declan gets 27 plants more than Kofi. How many plants does Kofi receive?

- ☐ A) 8
- ☐ B) 9
- ☐ C) 45
- ☐ D) 27
- ☐ E) 36

---

27 Two window cleaners split a block of jobs by pay in the ratio 3:9. The cleaner with fewer jobs is paid £12 less than the other cleaner. How much is the cleaner with fewer jobs paid?

- ☐ A) £18
- ☐ B) £2
- ☐ C) £12
- ☐ D) £6
- ☐ E) £24

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28 Rhys and Esme share some money in the ratio 2:3. Esme gets £18 more than Rhys. How much does Esme receive?

- [ ] A) £18.00
- [ ] B) £55.00
- [ ] C) £90.00
- [ ] D) £36.00
- [ ] E) £54.00

---

29 Harry and Ewan share some beads in the ratio 1:4. Ewan gets 24 beads more than Harry. How many beads does Ewan receive?

- [ ] A) 33
- [ ] B) 32
- [ ] C) 40
- [ ] D) 8
- [ ] E) 96

---

30 Two window cleaners split a block of jobs by pay in the ratio 7:11. The cleaner with fewer jobs is paid £8 less than the other cleaner. How much is the cleaner with fewer jobs paid?

- [ ] A) £8
- [ ] B) £36
- [ ] C) £14
- [ ] D) £22
- [ ] E) £2

---

31 A charity divides a sum in the ratio 3:8. The difference between the shares is £25. What is the total amount given out?

- [ ] A) £25
- [ ] B) £55
- [ ] C) £65
- [ ] D) £110
- [ ] E) £275

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32 Two colleagues share commission in the ratio 3:8. The larger gets £20 more than the smaller. How much does the larger colleague receive?

- [ ] A) £20
- [ ] B) £44
- [ ] C) £4
- [ ] D) £12
- [ ] E) £32

---

33 Callum and Maya share some shells in the ratio 5:6. Maya gets 9 shells more than Callum. How many shells does Callum receive?

- [ ] A) 45
- [ ] B) 46
- [ ] C) 9
- [ ] D) 44
- [ ] E) 54

---

34 Two Year 6 classes, 6R and 6S, collect recycling tokens for a class competition in the ratio 4:7. Class 6S collects 9 more tokens than Class 6R. How many tokens do the two classes collect altogether?

- [ ] A) 9
- [ ] B) 18
- [ ] C) 21
- [ ] D) 33
- [ ] E) 12

---

35 A raffle prize is split between the first and second ticket drawn in the ratio 3:7. The second ticket wins £12 more than the first. What is the total value of the prize?

- [ ] A) £3
- [ ] B) £12
- [ ] C) £9
- [ ] D) £21
- [ ] E) £30

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36 Declan and Callum share some money in the ratio 1:3. Callum gets £22 more than Declan. How much does Callum receive?

- [ ] A) £32.00
- [ ] B) £11.00
- [ ] C) £33.00
- [ ] D) £66.00
- [ ] E) £44.00

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37 Two youth sports clubs share a sponsorship payment in the ratio 9:13. The larger club receives £8 more than the smaller club. Work out how much the smaller club receives.

- [ ] A) £44
- [ ] B) £26
- [ ] C) £8
- [ ] D) £18
- [ ] E) £2

---

38 Two children, Priya and Noah, share a box of beads in the ratio 2:9. Noah has 14 more beads than Priya. How many beads does Priya have?

- [ ] A) 4
- [ ] B) 22
- [ ] C) 14
- [ ] D) 2
- [ ] E) 18

---

39 Harry and Ben share some money in the ratio 7:13. Ben gets £90 more than Harry. How much does Harry receive?

- [ ] A) £300.00
- [ ] B) £106.00
- [ ] C) £15.00
- [ ] D) £195.00
- [ ] E) £105.00

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40 Ewan and Chloe share some pencils in the ratio 4:5. Chloe gets 5 pencils more than Ewan. How many pencils does Chloe receive?

- [ ] A) 26
- [ ] B) 20
- [ ] C) 25
- [ ] D) 24
- [ ] E) 5

---

41 A charity divides a sum in the ratio 3:8. The difference between the shares is £15. What is the total amount given out?

- [ ] A) £3
- [ ] B) £33
- [ ] C) £24
- [ ] D) £15
- [ ] E) £9

---

42 Ethan and Maya share some football cards in the ratio 7:10. Maya gets 36 football cards more than Ethan. How many football cards does Maya receive?

- [ ] A) 204
- [ ] B) 12
- [ ] C) 84
- [ ] D) 36
- [ ] E) 120

---

43 A group divides a donation in the ratio 3:7. The larger share is £28 more than the smaller. What is the smaller share?

- [ ] A) £28
- [ ] B) £49
- [ ] C) £7
- [ ] D) £21
- [ ] E) £70

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44 Tom and Ben share some shells in the ratio 1:3. Ben gets 16 shells more than Tom. How many shells does Tom receive?

- [ ] A) 8
- [ ] B) 32
- [ ] C) 24
- [ ] D) 7
- [ ] E) 9

---

45 Two sisters share an inheritance in the ratio 3:8. The elder sister receives £4,000 more than the younger. Work out the smaller (younger) sister's share.

- [ ] A) £8800
- [ ] B) £6400
- [ ] C) £4000
- [ ] D) £2400
- [ ] E) £800

---

46 Harry and Niamh share some money in the ratio 3:7. Niamh gets £60 more than Harry. How much does Harry receive?

- [ ] A) £180.00
- [ ] B) £15.00
- [ ] C) £105.00
- [ ] D) £45.00
- [ ] E) £150.00

---

47 Imogen and Oliver share some beads in the ratio 5:7. Oliver gets 12 beads more than Imogen. How many beads does Oliver receive?

- [ ] A) 41
- [ ] B) 84
- [ ] C) 42
- [ ] D) 6
- [ ] E) 30

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48 A farmer stores hay bales in two barns in the ratio 3:9. The larger barn holds 18 more bales than the smaller barn. How many bales does the larger barn hold?

- [ ] A) 27
- [ ] B) 9
- [ ] C) 18
- [ ] D) 3
- [ ] E) 36

---

49 Two children split apples in the ratio 2:4. The larger child has 6 more apples than the smaller. How many apples are there in total?

- [ ] A) 18
- [ ] B) 6
- [ ] C) 12
- [ ] D) 8
- [ ] E) 3

---

50 Harry and Kwame share some sweets in the ratio 4:5. Kwame gets 6 sweets more than Harry. How many sweets does Kwame receive?

- [ ] A) 54
- [ ] B) 24
- [ ] C) 29
- [ ] D) 30
- [ ] E) 6

---

51 A charity bake sale splits its profit between two classes in the ratio 3:7. The class with the larger share raises £28 more than the other class. How much does the larger-sharing class raise?

- [ ] A) £70
- [ ] B) £21
- [ ] C) £28
- [ ] D) £7
- [ ] E) £49

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52 Two sisters share an inheritance in the ratio 3:5. The elder sister receives £2,100 more than the younger. Work out the smaller (younger) sister's share.

- [ ] A) £2100
- [ ] B) £3150
- [ ] C) £8400
- [ ] D) £5250
- [ ] E) £1050

---

53 Aisha and Ewan share some beads in the ratio 7:10. Ewan gets 51 beads more than Aisha. How many beads does Aisha receive?

- [ ] A) 170
- [ ] B) 119
- [ ] C) 118
- [ ] D) 17
- [ ] E) 357

---

54 Two allotment holders share the cost of seed and compost in the ratio 3:7. The one who pays more pays £8 more than the other. How much does the one who pays more actually pay?

- [ ] A) £20
- [ ] B) £8
- [ ] C) £2
- [ ] D) £14
- [ ] E) £6

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55 A cake is cut into four pieces in the ratio 1:2:3:4. The smallest piece is 150 grams less than the next smallest piece. Find the total mass of the cake in grams.

(4)

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56 Aisha and Callum share some conkers in the ratio 3:4. Callum gets 8 conkers more than Aisha. How many conkers does Callum receive?

- ☐ A) 33
- ☐ B) 56
- ☐ C) 8
- ☐ D) 24
- ☐ E) 32

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57 Two employees are paid a bonus in the ratio 5:8. The employee with the larger bonus receives £96. Work out the difference between the two bonuses, and give this difference as a percentage of the SMALLER bonus.

(5)

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Mark scheme · 2.80 Ratio Sharing when the Difference is Given: 1-hour Pack

Question 1

correct option B (56) cao; 14 - 9 = 5 parts is 20, so 1 part is 4 **B1**

Answer: B) 56

Question 2

correct option B (£4) cao **B1**

Answer: B) £4

Question 3

correct option D (45) cao **B1**

Answer: D) 45

Question 4

correct option C (49) cao **B1**

Answer: C) 49 sweets. Difference = 5 parts so 1 part = 35/5 = 7; Sam = 7 x 7 = 49. | Working check: A/B) misread difference; D/E) multiply total or all parts.

Question 5

correct option C (285) cao; 10 - 9 = 1 parts is 15, so 1 part is 15 **B1**

Answer: C) 285

Question 6

correct option A (£28) cao **B1**

Answer: A) £28

Question 7

correct option E (£15.00) cao; 8 - 5 = 3 parts is 9, so 1 part is 3 **B1**

Answer: E) £15.00

Question 8

correct option A (£80) cao **B1**

Answer: A) £80

Question 9

correct option B (£78.00) cao; 13 - 7 = 6 parts is 36, so 1 part is 6 **B1**

Answer: B) £78.00

Question 10

correct option D (56) cao; 8 - 5 = 3 parts is 21, so 1 part is 7 **B1**

Answer: D) 56

Question 11

correct option D (£24) cao **B1**

Answer: D) £24

Question 12

correct option A (35) cao; 7 - 5 = 2 parts is 10, so 1 part is 5 **B1**

Answer: A) 35

Question 13

correct option B (£8) cao **B1**

Answer: B) £8. Difference = 9 - 2 = 7 parts, so 1 part = 28/7 = 4; smaller = 2 x 4 = 8. | Working check: distractors come from using the larger share or doubling the part value.

Question 14

correct option B (£20) cao; 5 - 4 = 1 parts is 4, so 1 part is 4 **B1**

Answer: B) £20

Question 15

correct option E (£4800) cao **B1**

Answer: E) £4800

Question 16

correct option D (£98) cao **B1**

Answer: D) £98

Question 17

correct option E (9) cao; 3 - 2 = 1 parts is 3, so 1 part is 3 **B1**

Answer: E) 9

Question 18

correct option C (£42) cao **B1**

Answer: C) £42

Question 19

correct option B (15) cao; 5 - 3 = 2 parts is 10, so 1 part is 5 **B1**

Answer: B) 15

Question 20

correct option A (£40) cao **B1**

Answer: A) £40

Question 21

correct option C (£40) cao; 11 - 8 = 3 parts is 15, so 1 part is 5 **B1**

Answer: C) £40

Question 22

correct option D (99) cao **B1**

Answer: D) 99

Question 23

correct option B (12) cao; 2 - 1 = 1 parts is 6, so 1 part is 6 **B1**

Answer: B) 12

Question 24

correct option E (£20) cao **B1**

Answer: E) £20

Question 25

correct option C (£72.00) cao; 5 - 3 = 2 parts is 18, so 1 part is 9 **B1**

Answer: C) £72.00

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Question 26

correct option B (9) cao; 4 - 1 = 3 parts is 27, so 1 part is 9 **B1**

Answer: B) 9

Question 27

correct option D (£6) cao **B1**

Answer: D) £6

Question 28

correct option E (£54.00) cao; 3 - 2 = 1 parts is 18, so 1 part is 18 **B1**

Answer: E) £54.00

Question 29

correct option B (32) cao; 4 - 1 = 3 parts is 24, so 1 part is 8 **B1**

Answer: B) 32

Question 30

correct option C (£14) cao **B1**

Answer: C) £14

Question 31

correct option B (£55) cao **B1**

Answer: B) £55. Difference = 5 parts so 1 part = 25/5 = 5; shares 15 and 40; total 55. | Working check: A/C/D/E) confusion with the difference, one share or mis-summing.

Question 32

correct option E (£32) cao **B1**

Answer: E) £32

Question 33

correct option A (45) cao; 6 - 5 = 1 parts is 9, so 1 part is 9 **B1**

Answer: A) 45

Question 34

correct option D (33) cao **B1**

Answer: D) 33

Question 35

correct option E (£30) cao **B1**

Answer: E) £30

Question 36

correct option C (£33.00) cao; 3 - 1 = 2 parts is 22, so 1 part is 11 **B1**

Answer: C) £33.00

Question 37

correct option D (£18) cao **B1**

Answer: D) £18

Question 38

correct option A (4) cao **B1**

Answer: A) 4

Question 39

correct option E (£105.00) cao; 13 - 7 = 6 parts is 90, so 1 part is 15 **B1**

Answer: E) £105.00

Question 40

correct option C (25) cao; 5 - 4 = 1 parts is 5, so 1 part is 5 **B1**

Answer: C) 25

Question 41

correct option B (£33) cao **B1**

Answer: B) £33

Question 42

correct option E (120) cao; 10 - 7 = 3 parts is 36, so 1 part is 12 **B1**

Answer: E) 120

Question 43

correct option D (£21) cao **B1**

Answer: D) £21

Question 44

correct option A (8) cao; 3 - 1 = 2 parts is 16, so 1 part is 8 **B1**

Answer: A) 8

Question 45

correct option D (£2400) cao **B1**

Answer: D) £2400

Question 46

correct option D (£45.00) cao; 7 - 3 = 4 parts is 60, so 1 part is 15 **B1**

Answer: D) £45.00

Question 47

correct option C (42) cao; 7 - 5 = 2 parts is 12, so 1 part is 6 **B1**

Answer: C) 42

Question 48

correct option A (27) cao **B1**

Answer: A) 27

Question 49

correct option A (18) cao **B1**

Answer: A) 18

Question 50

correct option D (30) cao; 5 - 4 = 1 parts is 6, so 1 part is 6 **B1**

Answer: D) 30

Question 51

correct option E (£49) cao **B1**

Answer: E) £49

Question 52

correct option B (£3150) cao **B1**

Answer: B) £3150

Question 53

correct option B (119) cao; 10 - 7 = 3 parts is 51, so 1 part is 17 **B1**

Answer: B) 119

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Question 54

correct option D (£14) cao	**B1**

Answer: D) £14

Question 55

identify difference between 2nd smallest and smallest = 1 part	**M1**
find 1 part = 150 g	**M1**
calculate total parts = 1+2+3+4 = 10 and method to find total mass	**M1**
total = 150 x 10 = 1500 g cao	**A1**

Answer: 1500 g. Working check: 2nd smallest - smallest = 2-1 = 1 part = 150 g. Total parts 10 so 150 x 10 = 1500 g.

Question 56

correct option E (32) cao; 4 - 3 = 1 parts is 8, so 1 part is 8	**B1**

Answer: E) 32

Question 57

find 1 part = 96/8 = 12	**M1**
find the smaller bonus = 5 x 12 = £60	**M1**
find the difference = 96 - 60 = £36	**M1**
form the fraction 36/60	**M1**
convert to 60% cao	**A1**

Answer: The difference is £36, which is 60% of the smaller bonus. Working check: 1 part = 96/8 = 12; smaller bonus = 5 x 12 = 60; difference = 96 - 60 = 36; 36/60 = 0.6 = 60%.

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