2.6 Ratio and Proportion: 1-hour Pack

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

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Yusuf and Fatima share 10 stamps in the ratio 2:3. How many stamps does Yusuf get?

- ☐ A) 2
- ☐ B) 3
- ☐ C) 4
- ☐ D) 6
- ☐ E) 5

---

2 Niamh has 850 ml of juice and 5 litres of water. What is the ratio of juice to water in its simplest form?

- ☐ A) 170000:1
- ☐ B) 100:17
- ☐ C) 170:1
- ☐ D) 17:100
- ☐ E) 17:117

---

3 Grace, Ravi and Priya share 54 raffle tickets in the ratio 7:2:9. How many raffle tickets does Priya get?

- ☐ A) 3
- ☐ B) 28
- ☐ C) 21
- ☐ D) 26
- ☐ E) 27

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4 Harry has 400 ml of juice and 5 litres of water. What is the ratio of juice to water in its simplest form?

- [ ] A) 400:5000
- [ ] B) 2:25
- [ ] C) 80000:1
- [ ] D) 80:1
- [ ] E) 25:2

---

5 Anya has 420p of pocket money and £2 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 10:21
- [ ] B) 21000:1
- [ ] C) 21:31
- [ ] D) 210:1
- [ ] E) 21:10

---

6 Anya and Tariq share 88 stickers in the ratio 5:6. How many stickers does Tariq get?

- [ ] A) 48
- [ ] B) 49
- [ ] C) 8
- [ ] D) 40
- [ ] E) 47

---

7 Ben has 350 g of sugar and 3 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 350:3000
- [ ] B) 350:3
- [ ] C) 7:60
- [ ] D) 60:7
- [ ] E) 7:67

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8 Noah and Harry share 140 stamps in the ratio 9:1. How many stamps does Harry get?

- [ ] A) 13
- [ ] B) 14
- [ ] C) 140
- [ ] D) 126
- [ ] E) 15

---

9 Imogen has 1050 cm of ribbon and 7 m of string. What is the ratio of ribbon to string in its simplest form?

- [ ] A) 3:5
- [ ] B) 15000:1
- [ ] C) 150:1
- [ ] D) 3:2
- [ ] E) 2:3

---

10 Oliver and Poppy share £90 in the ratio 8:1. How much money does Poppy get?

- [ ] A) £80
- [ ] B) £45
- [ ] C) £11
- [ ] D) £90
- [ ] E) £10

---

11 Chloe has 1350 cm of ribbon and 4 m of string. What is the ratio of ribbon to string in its simplest form?

- [ ] A) 27:35
- [ ] B) 8:27
- [ ] C) 1350:400
- [ ] D) 27:8
- [ ] E) 675:2

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12 Priya has 490p of pocket money and £9 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 49:139
- [ ] B) 49:90
- [ ] C) 90:49
- [ ] D) 49000:9
- [ ] E) 490:9

---

13 Niamh and Hamza share 12 football cards in the ratio 2:1. How many football cards does Niamh get?

- [ ] A) 8
- [ ] B) 9
- [ ] C) 7
- [ ] D) 4
- [ ] E) 6

---

14 Jack has 150 ml of juice and 5 litres of water. What is the ratio of juice to water in its simplest form?

- [ ] A) 3:100
- [ ] B) 30:1
- [ ] C) 3:103
- [ ] D) 100:3
- [ ] E) 30000:1

---

15 Chloe and Callum share 18 marbles in the ratio 4:5. How many marbles does Chloe get?

- [ ] A) 9
- [ ] B) 10
- [ ] C) 7
- [ ] D) 8
- [ ] E) 2

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16 Tom has 60 minutes of reading and 3 hours of homework. What is the ratio of reading to homework in its simplest form?

- [ ] A) 3:1
- [ ] B) 1:3
- [ ] C) 20:1
- [ ] D) 1:4
- [ ] E) 1200:1

---

17 Isla, Anya and Hamza share 195 badges in the ratio 6:1:8. How many badges does Isla get?

- [ ] A) 79
- [ ] B) 65
- [ ] C) 78
- [ ] D) 77
- [ ] E) 13

---

18 Declan has 700 g of sugar and 2 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 20:7
- [ ] B) 350000:1
- [ ] C) 700:2000
- [ ] D) 350:1
- [ ] E) 7:20

---

19 Arjun and Fatima share £14 in the ratio 2:5. How much money does Arjun get?

- [ ] A) £10.00
- [ ] B) £3.00
- [ ] C) £7.00
- [ ] D) £2.00
- [ ] E) £4.00

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20 Maya has 75 minutes of reading and 2 hours of homework. What is the ratio of reading to homework in its simplest form?

- [ ] A) 75:120
- [ ] B) 75:2
- [ ] C) 5:8
- [ ] D) 5:13
- [ ] E) 8:5

---

21 Hamza, Jack and Callum share 72 football cards in the ratio 9:8:1. How many football cards does Callum get?

- [ ] A) 72
- [ ] B) 68
- [ ] C) 36
- [ ] D) 4
- [ ] E) 5

---

22 Anya and Amara share 20 stamps in the ratio 1:4. How many stamps does Anya get?

- [ ] A) 4
- [ ] B) 16
- [ ] C) 5
- [ ] D) 10
- [ ] E) 20

---

23 Harry has 230p of pocket money and £6 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 60:23
- [ ] B) 23:60
- [ ] C) 115:3
- [ ] D) 230:600
- [ ] E) 23:83

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24 Ewan and Rhys share £27 in the ratio 2:1. How much money does Rhys get?

- [ ] A) £27.00
- [ ] B) £13.50
- [ ] C) £10.00
- [ ] D) £9.00
- [ ] E) £18.00

---

25 Isla and Yusuf share £105 in the ratio 4:3. How much money does Yusuf get?

- [ ] A) £46.00
- [ ] B) £15.00
- [ ] C) £45.00
- [ ] D) £60.00
- [ ] E) £52.50

---

26 Priya has 20 minutes of reading and 6 hours of homework. What is the ratio of reading to homework in its simplest form?

- [ ] A) 20:360
- [ ] B) 10:3
- [ ] C) 200:1
- [ ] D) 18:1
- [ ] E) 1:18

---

27 Ewan and Harry share £54 in the ratio 8:1. How much money does Harry get?

- [ ] A) £48.00
- [ ] B) £5.00
- [ ] C) £6.00
- [ ] D) £27.00
- [ ] E) £54.00

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28 Kofi has 1100 ml of juice and 2 litres of water. What is the ratio of juice to water in its simplest form?

- [ ] A) 20:11
- [ ] B) 11:20
- [ ] C) 1100:2000
- [ ] D) 11:31
- [ ] E) 550:1

---

29 Lily and Chloe share 169 stamps in the ratio 6:7. How many stamps does Chloe get?

- [ ] A) 13
- [ ] B) 90
- [ ] C) 92
- [ ] D) 78
- [ ] E) 91

---

30 Poppy has 820p of pocket money and £7 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 41:35
- [ ] B) 35:41
- [ ] C) 82000:7
- [ ] D) 820:700
- [ ] E) 820:7

---

31 Grace has 1150 g of sugar and 1 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 23:20
- [ ] B) 1150:1
- [ ] C) 20:23
- [ ] D) 23:43
- [ ] E) 1150000:1

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32 Megan and Imogen share 20 beads in the ratio 1:3. How many beads does Megan get?

- [ ] A) 6
- [ ] B) 20
- [ ] C) 5
- [ ] D) 15
- [ ] E) 10

---

33 Ffion has 1100 g of sugar and 3 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 1100000:3
- [ ] B) 30:11
- [ ] C) 1100:3
- [ ] D) 1100:3000
- [ ] E) 11:30

---

34 Lily and Oliver share 40 plants in the ratio 3:7. How many plants does Oliver get?

- [ ] A) 12
- [ ] B) 28
- [ ] C) 20
- [ ] D) 27
- [ ] E) 4

---

35 Ravi has 1200 ml of juice and 4 litres of water. What is the ratio of juice to water in its simplest form?

- [ ] A) 3:13
- [ ] B) 300:1
- [ ] C) 10:3
- [ ] D) 3:10
- [ ] E) 1200:4000

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36 A car travels at a constant speed and covers 180 km in 2.5 hours. Calculate how far the car would travel in 4 hours at the same speed.

(3)

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37 Chloe and Yusuf share 12 plants in the ratio 5:1. How many plants does Chloe get?

- ☐ A) 2
- ☐ B) 10
- ☐ C) 11
- ☐ D) 6
- ☐ E) 9

---

38 Arjun and Sienna share 135 football cards in the ratio 1:8. How many football cards does Sienna get?

- ☐ A) 12
- ☐ B) 121
- ☐ C) 15
- ☐ D) 119
- ☐ E) 120

---

39 Leo has 760p of pocket money and £1 of savings. What is the ratio of pocket money to savings in its simplest form?

- ☐ A) 38:5
- ☐ B) 38:43
- ☐ C) 5:38
- ☐ D) 760:1
- ☐ E) 760:100

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40 Niamh and Jack share £21 in the ratio 3:4. How much money does Niamh get?

- [ ] A) £12.00
- [ ] B) £10.00
- [ ] C) £10.50
- [ ] D) £9.00
- [ ] E) £3.00

---

41 Yusuf has 350 g of sugar and 8 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 350:8000
- [ ] B) 175:4
- [ ] C) 160:7
- [ ] D) 7:167
- [ ] E) 7:160

---

42 Leo and Aisha share £180 in the ratio 5:7. How much money does Aisha get?

- [ ] A) £75.00
- [ ] B) £90.00
- [ ] C) £105.00
- [ ] D) £106.00
- [ ] E) £15.00

---

43 Maya has 1100 g of sugar and 1 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 11:10
- [ ] B) 11:21
- [ ] C) 10:11
- [ ] D) 1100:1
- [ ] E) 1100000:1

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44 Tariq and Jack share £33 in the ratio 6:5. How much money does Tariq get?

- [ ] A) £19.00
- [ ] B) £17.00
- [ ] C) £3.00
- [ ] D) £18.00
- [ ] E) £15.00

---

45 Yusuf and Mei share 60 marbles in the ratio 7:5. How many marbles does Mei get?

- [ ] A) 5
- [ ] B) 35
- [ ] C) 24
- [ ] D) 30
- [ ] E) 25

---

46 Noah has 1050 ml of juice and 2 litres of water. What is the ratio of juice to water in its simplest form?

- [ ] A) 21:40
- [ ] B) 525:1
- [ ] C) 525000:1
- [ ] D) 40:21
- [ ] E) 21:61

---

47 Ravi has 140p of pocket money and £4 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 3500:1
- [ ] B) 20:7
- [ ] C) 7:20
- [ ] D) 140:400
- [ ] E) 35:1

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48 Chloe and Imogen share £18 in the ratio 5:4. How much money does Chloe get?

- [ ] A) £2.00
- [ ] B) £10.00
- [ ] C) £3.60
- [ ] D) £11.00
- [ ] E) £8.00

---

49 Tom has 65 minutes of reading and 3 hours of homework. What is the ratio of reading to homework in its simplest form?

- [ ] A) 65:180
- [ ] B) 36:13
- [ ] C) 1300:1
- [ ] D) 13:36
- [ ] E) 65:3

---

50 Esme has 15 minutes of reading and 4 hours of homework. What is the ratio of reading to homework in its simplest form?

- [ ] A) 225:1
- [ ] B) 15:4
- [ ] C) 1:16
- [ ] D) 16:1
- [ ] E) 15:240

---

51 Megan and Aisha share 36 beads in the ratio 2:7. How many beads does Aisha get?

- [ ] A) 28
- [ ] B) 29
- [ ] C) 8
- [ ] D) 27
- [ ] E) 4

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52 Isla has 15 minutes of reading and 3 hours of homework. What is the ratio of reading to homework in its simplest form?

- ☐ A) 1:13
- ☐ B) 15:180
- ☐ C) 12:1
- ☐ D) 5:1
- ☐ E) 1:12

---

53 Zara, Leo and Priya invest money in a business in the ratio 2 : 3 : 5 respectively. The business makes a profit of £600, which is shared in the same ratio as their investment. Calculate how much more profit Priya receives than Zara.

(3)

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54 Priya and Leo share £81 in the ratio 2:7. How much money does Priya get?

- ☐ A) £17.00
- ☐ B) £19.00
- ☐ C) £9.00
- ☐ D) £63.00
- ☐ E) £18.00

---

55 Priya has 35 minutes of reading and 3 hours of homework. What is the ratio of reading to homework in its simplest form?

- ☐ A) 35:3
- ☐ B) 7:43
- ☐ C) 36:7
- ☐ D) 7:36
- ☐ E) 700:1

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56 Harry and Ffion share 140 shells in the ratio 3:7. How many shells does Ffion get?

- [ ] A) 97
- [ ] B) 20
- [ ] C) 98
- [ ] D) 14
- [ ] E) 42

---

57 Kwame and Niamh share £182 in the ratio 4:9. How much money does Niamh get?

- [ ] A) £126.00
- [ ] B) £91.00
- [ ] C) £125.00
- [ ] D) £56.00
- [ ] E) £14.00

---

58 Zainab has 750 g of sugar and 2 kg of flour. What is the ratio of sugar to flour in its simplest form?

- [ ] A) 3:8
- [ ] B) 750:2000
- [ ] C) 8:3
- [ ] D) 375:1
- [ ] E) 375000:1

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59 Esme and Noah share 196 beads in the ratio 5:9. How many beads does Noah get?

- [ ] A) 70
- [ ] B) 125
- [ ] C) 98
- [ ] D) 14
- [ ] E) 126

---

60 Ethan has 530p of pocket money and £5 of savings. What is the ratio of pocket money to savings in its simplest form?

- [ ] A) 530:500
- [ ] B) 53:50
- [ ] C) 50:53
- [ ] D) 106:1
- [ ] E) 10600:1

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Mark scheme · 2.6 Ratio and Proportion: 1-hour Pack

Question 1

correct option C (4) cao; 10 / 5 = 2 per part, then 2 x 2 = 4 **B1**

Answer: C) 4

Question 2

correct option D (17:100) cao; convert to ml: 850:5000 then divide by the highest common factor **B1**

Answer: D) 17:100

Question 3

correct option E (27) cao; 54 / 18 = 3 per part, then 3 x 9 = 27 **B1**

Answer: E) 27

Question 4

correct option B (2:25) cao; convert to ml: 400:5000 then divide by the highest common factor **B1**

Answer: B) 2:25

Question 5

correct option E (21:10) cao; convert to p: 420:200 then divide by the highest common factor **B1**

Answer: E) 21:10

Question 6

correct option A (48) cao; 88 / 11 = 8 per part, then 8 x 6 = 48 **B1**

Answer: A) 48

Question 7

correct option C (7:60) cao; convert to g: 350:3000 then divide by the highest common factor **B1**

Answer: C) 7:60

Question 8

correct option B (14) cao; 140 / 10 = 14 per part, then 14 x 1 = 14 **B1**

Answer: B) 14

Question 9

correct option D (3:2) cao; convert to cm: 1050:700 then divide by the highest common factor **B1**

Answer: D) 3:2

Question 10

correct option E (£10) cao; 90 / 9 = 10 per part, then 10 x 1 = 10 **B1**

Answer: E) £10

Question 11

correct option D (27:8) cao; convert to cm: 1350:400 then divide by the highest common factor **B1**

Answer: D) 27:8

Question 12

correct option B (49:90) cao; convert to p: 490:900 then divide by the highest common factor **B1**

Answer: B) 49:90

Question 13

correct option A (8) cao; 12 / 3 = 4 per part, then 4 x 2 = 8 **B1**

Answer: A) 8

Question 14

correct option A (3:100) cao; convert to ml: 150:5000 then divide by the highest common factor **B1**

Answer: A) 3:100

Question 15

correct option D (8) cao; 18 / 9 = 2 per part, then 2 x 4 = 8 **B1**

Answer: D) 8

Question 16

correct option B (1:3) cao; convert to minutes: 60:180 then divide by the highest common factor **B1**

Answer: B) 1:3

Question 17

correct option C (78) cao; 195 / 15 = 13 per part, then 13 x 6 = 78 **B1**

Answer: C) 78

Question 18

correct option E (7:20) cao; convert to g: 700:2000 then divide by the highest common factor **B1**

Answer: E) 7:20

Question 19

correct option E (£4.00) cao; 14 / 7 = 2 per part, then 2 x 2 = 4 **B1**

Answer: E) £4.00

Question 20

correct option C (5:8) cao; convert to minutes: 75:120 then divide by the highest common factor **B1**

Answer: C) 5:8

Question 21

correct option D (4) cao; 72 / 18 = 4 per part, then 4 x 1 = 4 **B1**

Answer: D) 4

Question 22

correct option A (4) cao; 20 / 5 = 4 per part, then 4 x 1 = 4 **B1**

Answer: A) 4

Question 23

correct option B (23:60) cao; convert to p: 230:600 then divide by the highest common factor **B1**

Answer: B) 23:60

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Question 24

correct option D (£9.00) cao; 27 / 3 = 9 per part, then 9 x 1 = 9 **B1**

Answer: D) £9.00

Question 25

correct option C (£45.00) cao; 105 / 7 = 15 per part, then 15 x 3 = 45 **B1**

Answer: C) £45.00

Question 26

correct option E (1:18) cao; convert to minutes: 20:360 then divide by the highest common factor **B1**

Answer: E) 1:18

Question 27

correct option C (£6.00) cao; 54 / 9 = 6 per part, then 6 x 1 = 6 **B1**

Answer: C) £6.00

Question 28

correct option B (11:20) cao; convert to ml: 1100:2000 then divide by the highest common factor **B1**

Answer: B) 11:20

Question 29

correct option E (91) cao; 169 / 13 = 13 per part, then 13 x 7 = 91 **B1**

Answer: E) 91

Question 30

correct option A (41:35) cao; convert to p: 820:700 then divide by the highest common factor **B1**

Answer: A) 41:35

Question 31

correct option A (23:20) cao; convert to g: 1150:1000 then divide by the highest common factor **B1**

Answer: A) 23:20

Question 32

correct option C (5) cao; 20 / 4 = 5 per part, then 5 x 1 = 5 **B1**

Answer: C) 5

Question 33

correct option E (11:30) cao; convert to g: 1100:3000 then divide by the highest common factor **B1**

Answer: E) 11:30

Question 34

correct option B (28) cao; 40 / 10 = 4 per part, then 4 x 7 = 28 **B1**

Answer: B) 28

Question 35

correct option D (3:10) cao; convert to ml: 1200:4000 then divide by the highest common factor **B1**

Answer: D) 3:10

Question 36

speed found: 180/2.5 = 72 km/h **M1**

dep: their 72 x 4 **M1**

288 km cao **A1**

Answer: 288 km

Question 37

correct option B (10) cao; 12 / 6 = 2 per part, then 2 x 5 = 10 **B1**

Answer: B) 10

Question 38

correct option E (120) cao; 135 / 9 = 15 per part, then 15 x 8 = 120 **B1**

Answer: E) 120

Question 39

correct option A (38:5) cao; convert to p: 760:100 then divide by the highest common factor **B1**

Answer: A) 38:5

Question 40

correct option D (£9.00) cao; 21 / 7 = 3 per part, then 3 x 3 = 9 **B1**

Answer: D) £9.00

Question 41

correct option E (7:160) cao; convert to g: 350:8000 then divide by the highest common factor **B1**

Answer: E) 7:160

Question 42

correct option C (£105.00) cao; 180 / 12 = 15 per part, then 15 x 7 = 105 **B1**

Answer: C) £105.00

Question 43

correct option A (11:10) cao; convert to g: 1100:1000 then divide by the highest common factor **B1**

Answer: A) 11:10

Question 44

correct option D (£18.00) cao; 33 / 11 = 3 per part, then 3 x 6 = 18 **B1**

Answer: D) £18.00

Question 45

correct option E (25) cao; 60 / 12 = 5 per part, then 5 x 5 = 25 **B1**

Answer: E) 25

Question 46

correct option A (21:40) cao; convert to ml: 1050:2000 then divide by the highest common factor **B1**

Answer: A) 21:40

Question 47

correct option C (7:20) cao; convert to p: 140:400 then divide by the highest common factor **B1**

Answer: C) 7:20

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Question 48

correct option B (£10.00) cao; 18 / 9 = 2 per part, then 2 x 5 = 10 **B1**

Answer: B) £10.00

Question 49

correct option D (13:36) cao; convert to minutes: 65:180 then divide by the highest common factor **B1**

Answer: D) 13:36

Question 50

correct option C (1:16) cao; convert to minutes: 15:240 then divide by the highest common factor **B1**

Answer: C) 1:16

Question 51

correct option A (28) cao; 36 / 9 = 4 per part, then 4 x 7 = 28 **B1**

Answer: A) 28

Question 52

correct option E (1:12) cao; convert to minutes: 15:180 then divide by the highest common factor **B1**

Answer: E) 1:12

Question 53

total parts found (2 + 3 + 5 = 10) and unit value found: 600/10 = 60 **M1**

dep: Priya's share and Zara's share found (5 x 60 = 300, 2 x 60 = 120) **M1**

£180 cao **A1**

Answer: £180

Question 54

correct option E (£18.00) cao; 81 / 9 = 9 per part, then 9 x 2 = 18 **B1**

Answer: E) £18.00

Question 55

correct option D (7:36) cao; convert to minutes: 35:180 then divide by the highest common factor **B1**

Answer: D) 7:36

Question 56

correct option C (98) cao; 140 / 10 = 14 per part, then 14 x 7 = 98 **B1**

Answer: C) 98

Question 57

correct option A (£126.00) cao; 182 / 13 = 14 per part, then 14 x 9 = 126 **B1**

Answer: A) £126.00

Question 58

correct option A (3:8) cao; convert to g: 750:2000 then divide by the highest common factor **B1**

Answer: A) 3:8

Question 59

correct option E (126) cao; 196 / 14 = 14 per part, then 14 x 9 = 126 **B1**

Answer: E) 126

Question 60

correct option B (53:50) cao; convert to p: 530:500 then divide by the highest common factor **B1**

Answer: B) 53:50

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