2.90 Age and Difference Problems: 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 is 10 years old. Yusuf's uncle is 3 times as old as Yusuf. How old will Yusuf's uncle be when Yusuf is 16?

- ☐ A) 48
- ☐ B) 30
- ☐ C) 35
- ☐ D) 36
- ☐ E) 37

---

2 Jack is 5 times as old as Kwame. Their ages add up to 24. How old is Kwame?

- ☐ A) 19
- ☐ B) 4.8
- ☐ C) 4
- ☐ D) 3
- ☐ E) 20

---

3 Yusuf is 12 years old and Yusuf's brother is 17. How old will the brother be when Yusuf is 39?

- ☐ A) 44
- ☐ B) 43
- ☐ C) 39
- ☐ D) 56
- ☐ E) 34

---

4 Three siblings have consecutive even-numbered ages. The sum of their ages is 78. Work out the three ages.

(2)

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5 Ethan is 4 times as old as Hamza. Their ages add up to 40. How old is Hamza?

- [ ] A) 8
- [ ] B) 10
- [ ] C) 20
- [ ] D) 36
- [ ] E) 32

---

6 Kwame is 12 years old and Kwame's cousin is 18. How old will the cousin be when Kwame is 31?

- [ ] A) 31
- [ ] B) 25
- [ ] C) 37
- [ ] D) 56
- [ ] E) 49

---

7 Callum is 13 years old. Callum's uncle is 4 times as old as Callum. How old will Callum's uncle be when Callum is 16?

- [ ] A) 56
- [ ] B) 51
- [ ] C) 64
- [ ] D) 55
- [ ] E) 52

---

8 Grace is 5 times as old as Ben. Their ages add up to 84. How old is Ben?

- [ ] A) 79
- [ ] B) 14
- [ ] C) 70
- [ ] D) 16.8
- [ ] E) 15

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9 Harry is 8 years old and Harry's brother is 11. How old will the brother be when Harry is 25?

- [ ] A) 28
- [ ] B) 27
- [ ] C) 29
- [ ] D) 22
- [ ] E) 36

---

10 Esme is 9 years old. Esme's father is 3 times as old as Esme. How old will Esme's father be when Esme is 13?

- [ ] A) 39
- [ ] B) 40
- [ ] C) 31
- [ ] D) 27
- [ ] E) 30

---

11 Grace is 11 years old and Grace's sister is 15. How old will the sister be when Grace is 24?

- [ ] A) 24
- [ ] B) 28
- [ ] C) 39
- [ ] D) 20
- [ ] E) 29

---

12 Callum is 9 years old. Callum's grandmother is 4 times as old as Callum. How old will Callum's grandmother be when Callum is 12?

- [ ] A) 36
- [ ] B) 21
- [ ] C) 48
- [ ] D) 38
- [ ] E) 39

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13 Leo is 3 times as old as Megan. Their ages add up to 20. How old is Megan?

- [ ] A) 15
- [ ] B) 10
- [ ] C) 4
- [ ] D) 5
- [ ] E) 17

---

14 Ffion is 14 years old and Ffion's cousin is 21. How old will the cousin be when Ffion is 31?

- [ ] A) 37
- [ ] B) 24
- [ ] C) 52
- [ ] D) 39
- [ ] E) 38

---

15 Priya is 8 years old. Priya's uncle is 4 times as old as Priya. How old will Priya's uncle be when Priya is 17?

- [ ] A) 68
- [ ] B) 41
- [ ] C) 60
- [ ] D) 49
- [ ] E) 32

---

16 Oliver is 4 times as old as Ewan. Their ages add up to 60. How old is Ewan?

- [ ] A) 12
- [ ] B) 30
- [ ] C) 48
- [ ] D) 13
- [ ] E) 15

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17 Kwame is 6 years old and Kwame's brother is 15. How old will the brother be when Kwame is 12?

- [ ] A) 3
- [ ] B) 12
- [ ] C) 20
- [ ] D) 21
- [ ] E) 27

---

18 Tariq is 5 times as old as Esme. Their ages add up to 42. How old is Esme?

- [ ] A) 7
- [ ] B) 21
- [ ] C) 8.4
- [ ] D) 8
- [ ] E) 35

---

19 Hamza is 12 years old and Hamza's sister is 17. How old will the sister be when Hamza is 41?

- [ ] A) 58
- [ ] B) 41
- [ ] C) 46
- [ ] D) 36
- [ ] E) 75

---

20 Fatima is 7 years old. Fatima's grandmother is 4 times as old as Fatima. How old will Fatima's grandmother be when Fatima is 15?

- [ ] A) 28
- [ ] B) 60
- [ ] C) 22
- [ ] D) 36
- [ ] E) 37

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21 Anya is 6 years old and Anya's brother is 12. How old will the brother be when Anya is 15?

- [ ] A) 20
- [ ] B) 21
- [ ] C) 27
- [ ] D) 30
- [ ] E) 9

---

22 Grace is 7 years old. Grace's uncle is 4 times as old as Grace. How old will Grace's uncle be when Grace is 16?

- [ ] A) 37
- [ ] B) 36
- [ ] C) 28
- [ ] D) 64
- [ ] E) 38

---

23 Sienna is 5 years old and Sienna's cousin is 8. How old will the cousin be when Sienna is 30?

- [ ] A) 27
- [ ] B) 32
- [ ] C) 38
- [ ] D) 33
- [ ] E) 58

---

24 Maya is 11 years old. Maya's mother is 3 times as old as Maya. How old will Maya's mother be when Maya is 24?

- [ ] A) 72
- [ ] B) 46
- [ ] C) 33
- [ ] D) 47
- [ ] E) 35

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25 Jack is 4 times as old as Ravi. Their ages add up to 30. How old is Ravi?

- [ ] A) 7.5
- [ ] B) 7
- [ ] C) 6
- [ ] D) 24
- [ ] E) 26

---

26 Amara is 14 years old and Amara's sister is 21. How old will the sister be when Amara is 24?

- [ ] A) 30
- [ ] B) 45
- [ ] C) 17
- [ ] D) 31
- [ ] E) 24

---

27 Lily is 12 years old. Lily's uncle is 3 times as old as Lily. How old will Lily's uncle be when Lily is 20?

- [ ] A) 48
- [ ] B) 60
- [ ] C) 44
- [ ] D) 36
- [ ] E) 45

---

28 Kwame is 3 times as old as Ravi. Their ages add up to 64. How old is Ravi?

- [ ] A) 15
- [ ] B) 16
- [ ] C) 32
- [ ] D) 61
- [ ] E) 48

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29 Chloe is 6 years old and Chloe's brother is 13. How old will the brother be when Chloe is 35?

- [ ] A) 42
- [ ] B) 71
- [ ] C) 35
- [ ] D) 28
- [ ] E) 48

---

30 Isla is 4 times as old as Esme. Their ages add up to 20. How old is Esme?

- [ ] A) 4
- [ ] B) 5
- [ ] C) 10
- [ ] D) 16
- [ ] E) 3

---

31 Maya is 7 years old and Maya's sister is 15. How old will the sister be when Maya is 17?

- [ ] A) 17
- [ ] B) 32
- [ ] C) 25
- [ ] D) 26
- [ ] E) 9

---

32 Poppy is 10 years old and Poppy's brother is 16. How old will the brother be when Poppy is 22?

- [ ] A) 16
- [ ] B) 28
- [ ] C) 40
- [ ] D) 27
- [ ] E) 38

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33 Aisha is 6 years old. Aisha's grandmother is 2 times as old as Aisha. How old will Aisha's grandmother be when Aisha is 16?

- [ ] A) 21
- [ ] B) 32
- [ ] C) 28
- [ ] D) 22
- [ ] E) 12

---

34 Poppy is 10 years old and Poppy's sister is 16. How old will the sister be when Poppy is 19?

- [ ] A) 25
- [ ] B) 13
- [ ] C) 34
- [ ] D) 24
- [ ] E) 35

---

35 Dylan is 13 years old and Dylan's cousin is 19. How old will the cousin be when Dylan is 42?

- [ ] A) 77
- [ ] B) 36
- [ ] C) 48
- [ ] D) 49
- [ ] E) 61

---

36 Tariq is 8 years old. Tariq's uncle is 2 times as old as Tariq. How old will Tariq's uncle be when Tariq is 17?

- [ ] A) 34
- [ ] B) 26
- [ ] C) 24
- [ ] D) 25
- [ ] E) 16

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37 Ethan is 5 years old and Ethan's cousin is 14. How old will the cousin be when Ethan is 25?

- [ ] A) 54
- [ ] B) 34
- [ ] C) 33
- [ ] D) 16
- [ ] E) 39

---

38 Maya is 12 years old. Maya's father is 2 times as old as Maya. How old will Maya's father be when Maya is 21?

- [ ] A) 24
- [ ] B) 32
- [ ] C) 42
- [ ] D) 34
- [ ] E) 33

---

39 Chloe is 14 years old and Chloe's sister is 22. How old will the sister be when Chloe is 38?

- [ ] A) 70
- [ ] B) 46
- [ ] C) 45
- [ ] D) 60
- [ ] E) 30

---

40 Lily is 14 years old. Lily's father is 3 times as old as Lily. How old will Lily's father be when Lily is 18?

- [ ] A) 46
- [ ] B) 42
- [ ] C) 45
- [ ] D) 54
- [ ] E) 32

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41 Ethan is 8 years old. Ethan's grandmother is 4 times as old as Ethan. How old will Ethan's grandmother be when Ethan is 15?

- [ ] A) 60
- [ ] B) 23
- [ ] C) 52
- [ ] D) 39
- [ ] E) 32

---

42 Poppy is 9 years old and Poppy's cousin is 15. How old will the cousin be when Poppy is 18?

- [ ] A) 12
- [ ] B) 18
- [ ] C) 24
- [ ] D) 33
- [ ] E) 25

---

43 Noah is 6 years old. Noah's mother is 3 times as old as Noah. How old will Noah's mother be when Noah is 14?

- [ ] A) 26
- [ ] B) 18
- [ ] C) 42
- [ ] D) 25
- [ ] E) 20

---

44 Leo is 13 years old. Leo's father is 2 times as old as Leo. How old will Leo's father be when Leo is 25?

- [ ] A) 50
- [ ] B) 51
- [ ] C) 26
- [ ] D) 38
- [ ] E) 39

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45 Ewan is 5 years old and Ewan's cousin is 11. How old will the cousin be when Ewan is 29?

- [ ] A) 40
- [ ] B) 35
- [ ] C) 34
- [ ] D) 23
- [ ] E) 29

---

46 A is 7 years older than B now. In 4 years time the ages of A and B will be in the ratio 3: 2. Find their current ages.

(2)

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47 Leo is 5 years old and Leo's cousin is 7. How old will the cousin be when Leo is 28?

- [ ] A) 35
- [ ] B) 26
- [ ] C) 31
- [ ] D) 28
- [ ] E) 30

---

48 Oliver is 11 years old. Oliver's uncle is 4 times as old as Oliver. How old will Oliver's uncle be when Oliver is 19?

- [ ] A) 76
- [ ] B) 65
- [ ] C) 44
- [ ] D) 52
- [ ] E) 51

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49 Imogen is 12 years old and Imogen's cousin is 16. How old will the cousin be when Imogen is 24?

- [ ] A) 28
- [ ] B) 20
- [ ] C) 27
- [ ] D) 40
- [ ] E) 24

---

50 Ben is 6 years old. Ben's grandmother is 3 times as old as Ben. How old will Ben's grandmother be when Ben is 13?

- [ ] A) 33
- [ ] B) 25
- [ ] C) 39
- [ ] D) 19
- [ ] E) 18

---

51 Declan is 11 years old and Declan's brother is 19. How old will the brother be when Declan is 23?

- [ ] A) 31
- [ ] B) 32
- [ ] C) 42
- [ ] D) 30
- [ ] E) 15

---

52 Megan is 6 years old. Megan's grandmother is 4 times as old as Megan. How old will Megan's grandmother be when Megan is 18?

- [ ] A) 24
- [ ] B) 37
- [ ] C) 72
- [ ] D) 35
- [ ] E) 36

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53 Tom is 9 years old and Tom's brother is 16. How old will the brother be when Tom is 21?

- ☐ A) 37
- ☐ B) 21
- ☐ C) 14
- ☐ D) 28
- ☐ E) 29

---

54 Isla is 12 years old and Isla's brother is 18. How old will the brother be when Isla is 27?

- ☐ A) 48
- ☐ B) 33
- ☐ C) 45
- ☐ D) 27
- ☐ E) 21

---

55 An aunt is 6 times as old as her nephew now. In 6 years time she will be 4 times as old as him then. Find their current ages.

(2)

---

56 Fatima is 9 years old. Fatima's father is 4 times as old as Fatima. How old will Fatima's father be when Fatima is 19?

- ☐ A) 76
- ☐ B) 67
- ☐ C) 55
- ☐ D) 36
- ☐ E) 46

---

57 Leo is 8 years old and Leo's sister is 16. How old will the sister be when Leo is 15?

- ☐ A) 22
- ☐ B) 31
- ☐ C) 15
- ☐ D) 23
- ☐ E) 7

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58 Jack is 11 years old. Jack's grandmother is 2 times as old as Jack. How old will Jack's grandmother be when Jack is 16?

- [ ] A) 38
- [ ] B) 27
- [ ] C) 26
- [ ] D) 32
- [ ] E) 22

---

59 Oliver is 13 years old and Oliver's cousin is 17. How old will the cousin be when Oliver is 37?

- [ ] A) 33
- [ ] B) 65
- [ ] C) 41
- [ ] D) 40
- [ ] E) 54

---

60 Ffion is 9 years old. Ffion's father is 4 times as old as Ffion. How old will Ffion's father be when Ffion is 14?

- [ ] A) 41
- [ ] B) 40
- [ ] C) 36
- [ ] D) 56
- [ ] E) 42

---

61 Kwame is 11 years old. Kwame's uncle is 4 times as old as Kwame. How old will Kwame's uncle be when Kwame is 23?

- [ ] A) 44
- [ ] B) 81
- [ ] C) 56
- [ ] D) 67
- [ ] E) 92

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Mark scheme · 2.90 Age and Difference Problems: 1-hour Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

correct option D (36) cao **B1**

Answer: D) 36

Question 2

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

Answer: C) 4

Question 3

correct option A (44) cao **B1**

Answer: A) 44

Question 4

Let smallest even = n then n, n+2, n+4 and equation 3n + 6 = 78 seen **M1**

ages 24, 26, 28 cao **A1**

Answer: 24, 26, 28 years (3n + 6 = 78 => n = 24).

Question 5

correct option A (8) cao **B1**

Answer: A) 8

Question 6

correct option C (37) cao **B1**

Answer: C) 37

Question 7

correct option D (55) cao **B1**

Answer: D) 55

Question 8

correct option B (14) cao **B1**

Answer: B) 14

Question 9

correct option A (28) cao **B1**

Answer: A) 28

Question 10

correct option C (31) cao **B1**

Answer: C) 31

Question 11

correct option B (28) cao **B1**

Answer: B) 28

Question 12

correct option E (39) cao **B1**

Answer: E) 39

Question 13

correct option D (5) cao **B1**

Answer: D) 5

Question 14

correct option E (38) cao **B1**

Answer: E) 38

Question 15

correct option B (41) cao **B1**

Answer: B) 41

Question 16

correct option A (12) cao **B1**

Answer: A) 12

Question 17

correct option D (21) cao **B1**

Answer: D) 21

Question 18

correct option A (7) cao **B1**

Answer: A) 7

Question 19

correct option C (46) cao **B1**

Answer: C) 46

Question 20

correct option D (36) cao **B1**

Answer: D) 36

Question 21

correct option B (21) cao **B1**

Answer: B) 21

Question 22

correct option A (37) cao **B1**

Answer: A) 37

Question 23

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

Answer: D) 33

Question 24

correct option B (46) cao **B1**

Answer: B) 46

Question 25

correct option C (6) cao **B1**

Answer: C) 6

Question 26

correct option D (31) cao **B1**

Answer: D) 31

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Question 27

correct option C (44) cao **B1**

Answer: C) 44

Question 28

correct option B (16) cao **B1**

Answer: B) 16

Question 29

correct option A (42) cao **B1**

Answer: A) 42

Question 30

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

Answer: A) 4

Question 31

correct option C (25) cao **B1**

Answer: C) 25

Question 32

correct option B (28) cao **B1**

Answer: B) 28

Question 33

correct option D (22) cao **B1**

Answer: D) 22

Question 34

correct option A (25) cao **B1**

Answer: A) 25

Question 35

correct option C (48) cao **B1**

Answer: C) 48

Question 36

correct option D (25) cao **B1**

Answer: D) 25

Question 37

correct option B (34) cao **B1**

Answer: B) 34

Question 38

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

Answer: E) 33

Question 39

correct option B (46) cao **B1**

Answer: B) 46

Question 40

correct option A (46) cao **B1**

Answer: A) 46

Question 41

correct option D (39) cao **B1**

Answer: D) 39

Question 42

correct option C (24) cao **B1**

Answer: C) 24

Question 43

correct option A (26) cao **B1**

Answer: A) 26

Question 44

correct option D (38) cao **B1**

Answer: D) 38

Question 45

correct option B (35) cao **B1**

Answer: B) 35

Question 46

Let B = b and A = b + 7; set up (b + 7 + 4)/(b + 4) = 3/2 **M1**

A = 17 and B = 10 cao **A1**

Answer: A 17, B 10 years (2(b + 11) = 3(b + 4) => b = 10).

Question 47

correct option E (30) cao **B1**

Answer: E) 30

Question 48

correct option D (52) cao **B1**

Answer: D) 52

Question 49

correct option A (28) cao **B1**

Answer: A) 28

Question 50

correct option B (25) cao **B1**

Answer: B) 25

Question 51

correct option A (31) cao **B1**

Answer: A) 31

Question 52

correct option E (36) cao **B1**

Answer: E) 36

Question 53

correct option D (28) cao **B1**

Answer: D) 28

Question 54

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

Answer: B) 33

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Question 55

Let nephew = n and aunt = 6n; equation 6n + 6 = 4(n + 6) seen; accept an equivalent route to the same value without algebra, such as trial and improvement **M1**

nephew 9 and aunt 54 cao **A1**

Answer: Nephew 9, aunt 54 (6n + 6 = 4n + 24 => 2n = 18 => n = 9).

Question 56

correct option E (46) cao **B1**

Answer: E) 46

Question 57

correct option D (23) cao **B1**

Answer: D) 23

Question 58

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

Answer: B) 27

Question 59

correct option C (41) cao **B1**

Answer: C) 41

Question 60

correct option A (41) cao **B1**

Answer: A) 41

Question 61

correct option C (56) cao **B1**

Answer: C) 56

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