2.90 Age and Difference Problems: 30-minute Pack

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Ben is 6 years old and Ben's brother is 14. How old will the brother be when Ben is 29?

- [ ] A) 43
- [ ] B) 37
- [ ] C) 36
- [ ] D) 38
- [ ] E) 21

---

2 Hamza is 12 years old. Hamza's mother is 3 times as old as Hamza. How old will Hamza's mother be when Hamza is 25?

- [ ] A) 37
- [ ] B) 48
- [ ] C) 36
- [ ] D) 49
- [ ] E) 75

---

3 Lily is 3 times as old as Kofi. Their ages add up to 16. How old is Kofi?

- [ ] A) 4
- [ ] B) 13
- [ ] C) 3
- [ ] D) 12
- [ ] E) 8

© Revision Library | revisionlibrary.co.uk

4 Esme is 13 years old and Esme's brother is 22. How old will the brother be when Esme is 43?

- [ ] A) 65
- [ ] B) 53
- [ ] C) 51
- [ ] D) 34
- [ ] E) 52

---

5 Chloe is 2 times as old as Leo. Their ages add up to 27. How old is Leo?

- [ ] A) 18
- [ ] B) 27
- [ ] C) 10
- [ ] D) 9
- [ ] E) 13.5

---

6 Callum is 7 years old and Callum's sister is 11. How old will the sister be when Callum is 36?

- [ ] A) 47
- [ ] B) 40
- [ ] C) 36
- [ ] D) 32
- [ ] E) 69

---

7 Hamza is 13 years old. Hamza's uncle is 3 times as old as Hamza. How old will Hamza's uncle be when Hamza is 25?

- [ ] A) 51
- [ ] B) 39
- [ ] C) 75
- [ ] D) 52
- [ ] E) 62

© Revision Library | revisionlibrary.co.uk

8 Maya is 11 years old and Maya's cousin is 15. How old will the cousin be when Maya is 27?

- [ ] A) 30
- [ ] B) 42
- [ ] C) 31
- [ ] D) 27
- [ ] E) 23

---

9 Dylan is 6 years old. Dylan's father is 2 times as old as Dylan. How old will Dylan's father be when Dylan is 10?

- [ ] A) 16
- [ ] B) 14
- [ ] C) 20
- [ ] D) 12
- [ ] E) 15

---

10 Rhys is 2 times as old as Jack. Their ages add up to 36. How old is Jack?

- [ ] A) 18
- [ ] B) 24
- [ ] C) 13
- [ ] D) 12
- [ ] E) 11

---

11 Ravi is 10 years old. Ravi's mother is 2 times as old as Ravi. How old will Ravi's mother be when Ravi is 19?

- [ ] A) 30
- [ ] B) 29
- [ ] C) 28
- [ ] D) 20
- [ ] E) 38

© Revision Library | revisionlibrary.co.uk

12 Niamh is 2 times as old as Jack. Their ages add up to 12. How old is Jack?

- [ ] A) 4
- [ ] B) 8
- [ ] C) 12
- [ ] D) 6
- [ ] E) 5

---

13 Two years ago the sum of a couple's ages was 80. Now the younger is 4 years younger than the older. Find their current ages.

(2)

---

14 Aisha is 6 years old and Aisha's sister is 11. How old will the sister be when Aisha is 22?

- [ ] A) 33
- [ ] B) 17
- [ ] C) 22
- [ ] D) 28
- [ ] E) 27

---

15 Declan is 10 years old. Declan's uncle is 4 times as old as Declan. How old will Declan's uncle be when Declan is 14?

- [ ] A) 40
- [ ] B) 56
- [ ] C) 45
- [ ] D) 44
- [ ] E) 24

---

16 Zainab is 2 times as old as Noah. Their ages add up to 39. How old is Noah?

- [ ] A) 26
- [ ] B) 39
- [ ] C) 13
- [ ] D) 19.5
- [ ] E) 12

© Revision Library | revisionlibrary.co.uk

17 Grace is 12 years old and Grace's sister is 15. How old will the sister be when Grace is 25?

- [ ] A) 29
- [ ] B) 28
- [ ] C) 27
- [ ] D) 40
- [ ] E) 22

---

18 Tariq is 3 times as old as Ravi. Their ages add up to 28. How old is Ravi?

- [ ] A) 14
- [ ] B) 25
- [ ] C) 21
- [ ] D) 6
- [ ] E) 7

---

19 Maya is 8 years old and Maya's sister is 12. How old will the sister be when Maya is 35?

- [ ] A) 38
- [ ] B) 31
- [ ] C) 47
- [ ] D) 39
- [ ] E) 66

---

20 Yusuf is 10 years old. Yusuf's mother is 2 times as old as Yusuf. How old will Yusuf's mother be when Yusuf is 25?

- [ ] A) 20
- [ ] B) 45
- [ ] C) 35
- [ ] D) 40
- [ ] E) 50

© Revision Library | revisionlibrary.co.uk

21 Arjun is 10 years old and Arjun's sister is 15. How old will the sister be when Arjun is 24?

- [ ] A) 19
- [ ] B) 39
- [ ] C) 30
- [ ] D) 29
- [ ] E) 24

---

22 Megan is 10 years old. Megan's uncle is 2 times as old as Megan. How old will Megan's uncle be when Megan is 22?

- [ ] A) 20
- [ ] B) 42
- [ ] C) 33
- [ ] D) 44
- [ ] E) 32

---

23 Mei is 13 years old and Mei's cousin is 20. How old will the cousin be when Mei is 23?

- [ ] A) 16
- [ ] B) 43
- [ ] C) 30
- [ ] D) 23
- [ ] E) 29

---

24 Niamh is 14 years old. Niamh's grandmother is 3 times as old as Niamh. How old will Niamh's grandmother be when Niamh is 22?

- [ ] A) 42
- [ ] B) 50
- [ ] C) 66
- [ ] D) 64
- [ ] E) 51

© Revision Library | revisionlibrary.co.uk

25 Tariq is 5 times as old as Anya. Their ages add up to 30. How old is Anya?

- ☐ A) 25
- ☐ B) 5
- ☐ C) 6
- ☐ D) 4
- ☐ E) 15

---

26 Fatima is 5 years old and Fatima's cousin is 14. How old will the cousin be when Fatima is 19?

- ☐ A) 19
- ☐ B) 27
- ☐ C) 10
- ☐ D) 33
- ☐ E) 28

---

27 The sum of A and B's ages is 31. Five years ago A was twice as old as B was then. Find A and B's current ages.

(3)

---

28 A father is 4 times as old as his child now. In 6 years time the father will be 3 times as old as the child. Find their current ages.

(2)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 2.90 Age and Difference Problems: 30-minute Pack

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

Question 1

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

Answer: B) 37

Question 2

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

Answer: D) 49

Question 3

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

Answer: A) 4

Question 4

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

Answer: E) 52

Question 5

correct option D (9) cao **B1**

Answer: D) 9

Question 6

correct option B (40) cao **B1**

Answer: B) 40

Question 7

correct option A (51) cao **B1**

Answer: A) 51

Question 8

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

Answer: C) 31

Question 9

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

Answer: A) 16

Question 10

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

Answer: D) 12

Question 11

correct option B (29) cao **B1**

Answer: B) 29

Question 12

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

Answer: A) 4

Question 13

Let older = p and younger = p - 4; use (p - 2) + (p - 4 - 2) = 80 or 2p - 8 = 80 seen **M1**

current ages 44 and 40 cao **A1**

Answer: Older 44, younger 40 (2p - 8 = 80 => p = 44).

Question 14

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

Answer: E) 27

Question 15

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

Answer: D) 44

Question 16

correct option C (13) cao **B1**

Answer: C) 13

Question 17

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

Answer: B) 28

Question 18

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

Answer: E) 7

Question 19

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

Answer: D) 39

Question 20

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

Answer: C) 35

Question 21

correct option D (29) cao **B1**

Answer: D) 29

Question 22

correct option E (32) cao **B1**

Answer: E) 32

Question 23

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

Answer: C) 30

Question 24

correct option B (50) cao **B1**

Answer: B) 50

Question 25

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

Answer: B) 5

Question 26

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

Answer: E) 28

© Revision Library | revisionlibrary.co.uk

Question 27

Let B = b and A = a; use a + b = 31 and a - 5 = 2(b - 5) to form equations	**M1**
Substitute a = 2b - 5 into a + b = 31 and solve 3b = 36	**M1**
A = 19 and B = 12 cao	**A1**

Answer: A = 19 years, B = 12 years (a = 2b - 5, 3b = 36 => b = 12).

Question 28

Let child = c, father = 4c; equation 4c + 6 = 3(c + 6) seen; accept an equivalent route to the same value without algebra, such as trial and improvement	**M1**
child 12 and father 48 cao	**A1**

Answer: Child 12 years, father 48 years (4c + 6 = 3c + 18 => c = 12).

© Revision Library | revisionlibrary.co.uk