2.90 Age and Difference Problems: 10-minute Pack

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Tom is 4 years older than twice Sam's age. Tom is 22 years old. How old is Sam now?

- ☐ A) 9
- ☐ B) 11
- ☐ C) 8
- ☐ D) 10
- ☐ E) 7

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2 A father is 40 years old and he is 4 times as old as his son. How old is the son?

- ☐ A) 9
- ☐ B) 10
- ☐ C) 12
- ☐ D) 8
- ☐ E) 11

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3 Priya is three times as old as her brother. The sum of their ages is 48. Work out Priya's age now.

(1)

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4 Sam is 5 times as old as Lara. Lara is 3 years old. How old is Sam?

- ☐ A) 8
- ☐ B) 15
- ☐ C) 20
- ☐ D) 18
- ☐ E) 5

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5 Leo is 11 years old. Leo's uncle is 3 times as old as Leo. How old will Leo's uncle be when Leo is 19?

- [ ] A) 33
- [ ] B) 30
- [ ] C) 57
- [ ] D) 52
- [ ] E) 41

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6 Poppy is 9 years old and Poppy's cousin is 18. How old will the cousin be when Poppy is 22?

- [ ] A) 44
- [ ] B) 40
- [ ] C) 13
- [ ] D) 31
- [ ] E) 32

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7 Poppy is 12 years old. Poppy's father is 2 times as old as Poppy. How old will Poppy's father be when Poppy is 22?

- [ ] A) 35
- [ ] B) 24
- [ ] C) 34
- [ ] D) 44
- [ ] E) 32

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8 Hamza is 3 times as old as Imogen. Their ages add up to 52. How old is Imogen?

- ☐ A) 39
- ☐ B) 12
- ☐ C) 13
- ☐ D) 26
- ☐ E) 14

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9 A grandmother is three times as old as her grandchild now. In 12 years time she will be twice as old as the grandchild. Find their current ages.

(3)

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Mark scheme · 2.90 Age and Difference Problems: 10-minute Pack

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

Question 1

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

Answer: A) 9 years old (2s + 4 = 22 => 2s = 18 => s = 9).

Question 2

correct option B (10) cao **B1**

Answer: B) 10 years old (40 ÷ 4 = 10).

Question 3

36 cao **B1**

Answer: 36 years old (let brother = x, Priya = 3x, 4x = 48 so x = 12 and Priya = 36).

Question 4

correct option B (15) cao **B1**

Answer: B) 15 years old (5 x 3 = 15).

Question 5

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

Answer: E) 41

Question 6

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

Answer: D) 31

Question 7

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

Answer: C) 34

Question 8

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

Answer: C) 13

Question 9

Let grandchild = g and grandmother = 3g; equation 3g + 12 = 2(g + 12) seen; accept an equivalent route to the same value without algebra, such as trial and improvement **M1**

Rearrange to get g = 12 **M1**

grandchild 12 and grandmother 36 cao **A1**

Answer: Grandchild 12, grandmother 36 (3g + 12 = 2g + 24 => g = 12).

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