10.5 Reasoning Practice Paper: 1-hour Pack

Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Each minibus has 18 seats. There are 67 children to carry.

What is the smallest number of minibuses needed?

Answer: ___

(2)

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2 Teddy buys 3 identical notebooks and a pencil. The total cost is 5.40. The pencil costs 0.60. How much does one notebook cost?

(a) Find the cost of one notebook in pounds. **(2)**

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3 A recipe for 6 pancakes uses 180 g of flour. Kamila wants to make 10 pancakes. How much flour does she need? Show your working.

(a) Find the mass of flour needed for 10 pancakes and explain your method. **(4)**

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4 Calculate 7.5 + 3.25. Show your answer as a decimal.

(a) Add 7.5 and 3.25. **(2)**

.....

5 In a class of 39 pupils, 11 like football, 35 like netball and 9 like both.

How many pupils like neither?

Answer: ___

(2)

6 Zara and Yusuf share 126 stickers in the ratio 2:5.

How many stickers does Yusuf get?

Answer: ___

(1)

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7 A rectangle has a perimeter of 80 cm. Its length is 26 cm.

What is its width?

Answer: ___ cm

Diagram NOT accurately drawn



(2)

8 Each taxi has 13 seats. There are 227 people to carry.

What is the smallest number of taxis needed?

Answer: ___

(2)

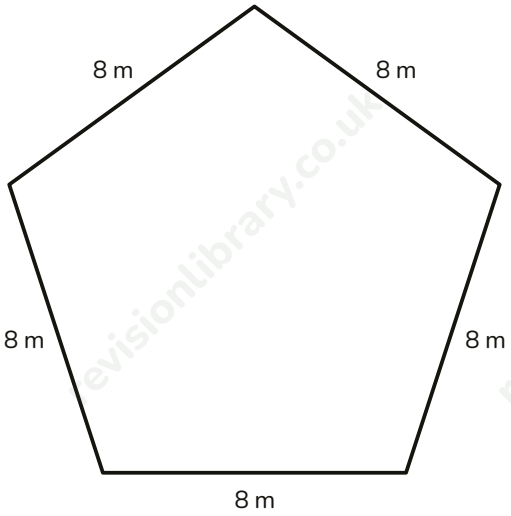
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9 A regular pentagon has sides of length 8 m.

What is its perimeter?

Answer: ___ m

Diagram NOT accurately drawn



(2)

10 Hassan has 24,705 cards. Hassan puts 24,609 aside and shares the rest equally between 3 friends.

How many cards does each friend get?

Answer: ___

(2)

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11 Sofia, Ravi and Olu share £42 in the ratio 2:7:5.

How much does Olu get?

Answer: £___

(3)

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12 Sana reads 3 chapters in 25 minutes. At this rate, how many minutes will she take to read 9 chapters?

(a) Find the time for 9 chapters. **(3)**

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13 Daisy, Oscar and Reece share £80 in the ratio 1:4:3.

How much does Reece get?

Answer: £___

(1)

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14 Callum has 27,049 beads. Callum puts 26,692 aside and shares the rest equally between 7 friends.

How many beads does each friend get?

Answer: ___

(2)

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15 A coach leaves at 11:01 and arrives at 14:33.

How many minutes does it take?

Answer: ___ minutes

(2)

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16 In a class of 28 pupils, 18 like football, 13 like netball and 9 like both.

How many pupils like neither?

Answer: ___

(2)

---

17 2/10 of the cherries in a jar is 30. How many cherries are in the jar?

Answer: ___

(2)

---

18 In a class of 23 pupils, 17 like swimming, 12 like cycling and 7 like both.

How many pupils like neither?

Answer: ___

(2)

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19 Dev has 37,822 marbles. Dev puts 35,788 aside and shares the rest equally between 6 friends.

How many marbles does each friend get?

Answer: ___

(2)

---

20 A shop sells 2 sweets for 62p and 5 sweets for 57p.

Which pack is better value for money? Write the number of sweets in the pack.

Answer: ___

(2)

---

21 A number a is found using a = 3n - 9.

Work out a when n = 13.

Answer: ___

(2)

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22 The sum of 4 consecutive even numbers is 60.

What is the smallest of the 4 numbers?

Answer: ___

(2)

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23 Write 0.875 as a fraction in its simplest form.

(a) Give 0.875 as a fraction in simplest form. **(2)**

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Mark scheme · 10.5 Reasoning Practice Paper: 1-hour Pack

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

Question 1

67 / 18 = 3 remainder 13 seen	M1
4 cao	A1

Answer: **4**

Question 2

(a) Subtracts pencil cost then divides by 3: shows (5.40 - 0.60) / 3	M1
(a) 1.60 cao	A1

(a) Answer: **1.60**

Question 3

(a) Finds flour per pancake: 180 ÷ 6 = 30 g	M1
(a) Multiplies per pancake amount by 10: 30 x 10 seen	M1
(a) Computes 30 x 10 = 300	M1
(a) 300 g cao	A1

(a) Answer: **300 g**

Question 4

(a) Correct decimal addition method seen, aligning tenths and hundredths	M1
(a) 10.75 cao	A1

(a) Answer: **10.75**

Question 5

11 + 35 - 9 = 37 seen	M1
2 cao	A1

Answer: **2**

Question 6

90 cao	B1

Answer: **90**

Question 7

80 - 52 = 28 seen	M1
14 cm cao	A1

Answer: **14 cm**

Question 8

227 / 13 = 17 remainder 6 seen	M1
18 cao	A1

Answer: **18**

Question 9

5 x 8	M1
40 m cao	A1

Answer: **40 m**

Question 10

96 seen	M1
32 cao	A1

Answer: **32**

Question 11

42 divided by 14 = 3 seen	M1
multiplies by their share	M1
£15 cao	A1

Answer: **£15**

Question 12

(a) Correct proportional working, e.g. time per chapter 25/3 seen	M1
(a) Multiplies to find time for 9 chapters, e.g. (25/3) x 9	M1
(a) 75 cao	A1

(a) Answer: **75**

Question 13

£30 cao	B1

Answer: **£30**

Question 14

357 seen	M1
51 cao	A1

Answer: **51**

Question 15

counts on to the next hour or minutes calculation	M1
212 minutes cao	A1

Answer: **212 minutes**

Question 16

18 + 13 - 9 = 22 seen	M1
6 cao	A1

Answer: **6**

Question 17

30 / 2 = 15 seen	M1
150 cao	A1

Answer: **150**

Question 18

17 + 12 - 7 = 22 seen	M1
1 cao	A1

Answer: **1**

Question 19

2,034 seen	M1
339 cao	A1

Answer: **339**

Question 20

finds the cost of one in each pack	M1
5 cao	A1

Answer: **5**

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Question 21

3 x 13 = 39 seen	**M1**
30 cao	**A1**

Answer: **30**

Question 22

uses the mean or tests numbers	**M1**
12 cao	**A1**

Answer: **12**

Question 23

(a) Shows 0.875 = 875/1000 and divides top and bottom by 125	**M1**
(a) 7/8 cao	**A1**

(a) Answer: **7/8**

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