1.11 Reasoning: Number and Calculation: 1-hour Pack

Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Each coach has 35 seats. There are 328 pupils to carry.

What is the smallest number of coaches needed?

Answer: ___

(2)

---

2 A charity collected 1,275 stamps. They pack them into envelopes with 15 stamps in each. They want to share the envelopes equally between 7 schools. How many envelopes will each school get and how many stamps are left over (not in envelopes)?

(2)

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3 Oliwia buys 3 packs of notebooks. Each pack has 14 notebooks. She wants to share them equally between 5 friends. How many notebooks does each friend get and how many are left over?

(2)

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4 Poppy eats 2/8 of a tray of flapjacks on Monday and 4/8 on Tuesday.

What fraction of the tray of flapjacks is left? Give your answer in its simplest form.

Answer: ___

(2)

---

5 Work out 4/6 of 54 g.

Answer: ___

(1)

---

6 Each coach has 26 seats. There are 387 pupils to carry.

What is the smallest number of coaches needed?

Answer: ___

(2)

---

7 Estimate 3,454 + 3,481 by rounding each number to the nearest 1,000 first.

Answer: ___

(2)

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8 Books cost £5.96 each. Dev buys 4 and pays with £40.

How much change does Dev get?

Answer: £___

(2)

---

9 A stadium had 8,064 fans on Saturday and 9,726 fans on Sunday.

How many more fans came on the busier day?

Answer: ___

(2)

---

10 Tom has 1,360 coins. Tom puts 586 aside and shares the rest equally between 6 friends.

How many coins does each friend get?

Answer: ___

(2)

---

11 Callum buys 3 games that cost 7.95, 12.50 and £4.60. He pays with a £50 note. How much change does he get? Show working in pounds and pence.

(3)

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12 Lily has 140 cherries. Lily gives 2/10 of them to a friend.

How many cherries does Lily give to the friend?

Answer: ___

(2)

---

13 In a sale, a bag costs £145. The price is reduced by 5%.

How much is the reduction?

Answer: £___

(2)

---

14 What is the highest common factor of 10 and 44?

Answer: ___

(2)

---

15 Work out 2/6 of 66.

Answer: ___

(2)

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16 A museum had 9,591 visitors in May and 1,373 visitors in June.

How many visitors did it have altogether?

Answer: ___

(2)

---

17 Use each of the digits 2, 1, 4, 9 once to make the smallest possible 4-digit number.

Answer: ___

(1)

---

18 Use each of the digits 3, 4, 6, 7 once to make the largest possible 4-digit number.

Answer: ___

(2)

---

19 Each tray has 18 spaces. There are 179 cakes to carry.

What is the smallest number of trays needed?

Answer: ___

(2)

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20 A baker makes 72 cupcakes. She packs them into boxes with 6 cupcakes in each box. After packing, she sells 7 boxes. How many cupcakes are left unpacked or unsold?

(3)

---

21 Each taxi has 43 seats. There are 376 people to carry.

What is the smallest number of taxis needed?

Answer: ___

(2)

---

22 Which of these numbers is a prime number?

55, 51, 31, 57

Answer: ___

(1)

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23 A recipe needs 2 3/4 cups of flour to make 12 scones. How much flour is needed to make 20 scones? Give your answer as a mixed number in cups.

(2)

---

24 The sum of 5 consecutive odd numbers is 295.

What is the smallest of the 5 numbers?

Answer: ___

(2)

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Mark scheme · 1.11 Reasoning: Number and Calculation: 1-hour Pack

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

Question 1

328 / 35 = 9 remainder 13 seen — **M1**
10 cao — **A1**
Answer: **10**

Question 2

Envelopes made: 1,275 / 15 = 85 envelopes — **M1**
Each school gets 85 / 7 = 12 envelopes each with 1 envelope left over; stamps left not in envelopes = 0 because all stamps put in envelopes, so answer: 12 each, 0 stamps left cao — **B1**
Answer: **12 envelopes each, 0 stamps left**

Question 3

Total notebooks 3 x 14 = 42 — **M1**
Each friend gets 42 ÷ 5 = 8 with 2 left over (8 and 2 cao) — **B1**
Answer: **8 each, 2 left over**

Question 4

6/8 eaten seen — **M1**
1/4 cao — **A1**
Answer: **1/4**

Question 5

36 g cao — **B1**
Answer: **36 g**

Question 6

387 / 26 = 14 remainder 23 seen — **M1**
15 cao — **A1**
Answer: **15**

Question 7

3,000 and 3,000 seen — **M1**
6,000 cao — **A1**
Answer: **6,000**

Question 8

5.96 x 4 = 23.84 seen — **M1**
£16.16 cao — **A1**
Answer: **£16.16**

Question 9

subtraction method seen — **M1**
1,662 cao — **A1**
Answer: **1,662**

Question 10

774 seen — **M1**
129 cao — **A1**
Answer: **129**

Question 11

Correct total cost found: 7.95 + 12.50 + 4.60 = 25.05 — **M1**
Correct change 50.00 - 25.05 = 24.95 cao — **B2**
Answer: **24.95**

Question 12

140 divided by 10 = 14 seen — **M1**
28 cao — **A1**
Answer: **28**

Question 13

method for the percentage — **M1**
£7.25 cao — **A1**
Answer: **£7.25**

Question 14

lists the factors of each number — **M1**
2 cao — **A1**
Answer: **2**

Question 15

66 divided by 6 = 11 seen — **M1**
22 cao — **A1**
Answer: **22**

Question 16

addition method seen — **M1**
10,964 cao — **A1**
Answer: **10,964**

Question 17

1,249 cao — **B1**
Answer: **1,249**

Question 18

digits placed in value order — **M1**
7,643 cao — **A1**
Answer: **7,643**

Question 19

179 / 18 = 9 remainder 17 seen — **M1**
10 cao — **A1**
Answer: **10**

Question 20

Correct number of boxes filled: 72 / 6 = 12 boxes — **M1**
After selling 7 boxes, remaining cupcakes = (12 - 7) x 6 = 30 cao — **B2**
Answer: **30 cupcakes**

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Question 21

376 / 43 = 8 remainder 32 seen	**M1**
9 cao	**A1**

Answer: **9**

Question 22

31 cao	**B1**

Answer: **31**

Question 23

Find flour per scone: 2 3/4 = 11/4 cups; 11/4 ÷ 12 = 11/48 cups per scone	**M1**
Multiply by 20: 11/48 x 20 = 220/48 = 55/12 = 4 7/12 cups cao	**B1**

Answer: **4 7/12**

Question 24

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

Answer: **55**

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