10.3-10 Reasoning Practice Paper 10: Test Pack

NATIONAL CURRICULUM KS2 National Curriculum Mathematics - Reasoning Practice Paper Framework · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write down the value of the digit 7 in the number 47,208.

(1)

2 Round 68,472 to the nearest thousand.

(1)

3 Calculate 347 x 6.

(2)

4 Find 3/5 of 245.

(2)

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5 Ade is thinking of a number. He multiplies it by 3, then adds 8. His final answer is 50.

(a) Work out the number Ade started with. **(2)**

(b) Is Ade's number a multiple of 6? Give a reason for your answer. **(2)**

6 Simplify 9a + 6a.

Answer: ___

(1)

7 Solve 4x + 18 = 74.

Answer: x = ___

(2)

8 Ravi has p stamps. Zak has 3 times as many stamps as Ravi.

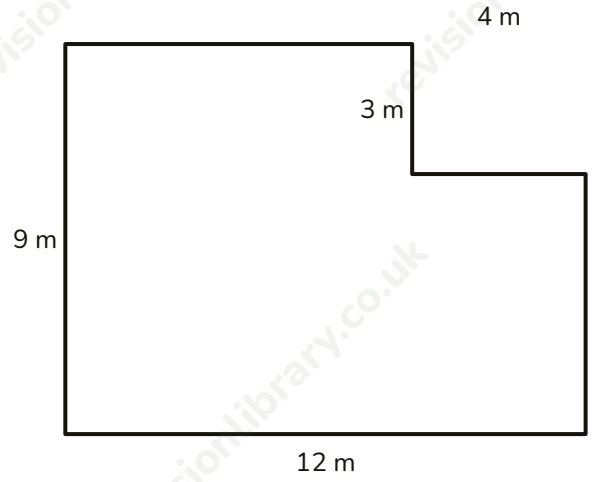
Write an expression for the number of stamps Zak has.

Answer: ___

(1)

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9 An L-shaped garden is made from a rectangle 12m by 9m, with a smaller rectangle 4m by 3m cut out of one corner, as shown in the diagram. Work out the area of the garden.



(3)

---

10 Put these four values in order of size, starting with the smallest: 3/4, 0.65, 70%, 17/25.

(4)

---

11 a and b are whole numbers. a + b = 16 and a is 6 more than b.

Find a and b.

Answer: a = ___, b = ___

(2)

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12 T = 4x + 4y.

Work out T when x = 9 and y = 5.

Answer: ___

(2)

---

13 A regular shape has perimeter P = 8s, where s is the side length.

Work out P when s = 18.

Answer: ___

(1)

---

14 George and Oscar share some money in the ratio 5:1. The difference between their shares is £8.

How much money is shared altogether?

Answer: £___

(2)

---

15 Two whole numbers have a sum of 10 and a product of 24.

What are the two numbers? Write the smaller one first.

Answer: ___ and ___

(2)

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16 The sum of 5 consecutive numbers is 215.

What is the smallest of the 5 numbers?

Answer: ___

(2)

---

17 Simplify n + 8 + 4n + 9.

Answer: ___

(2)

---

18 Reece is 2 times as old as Quinn. Together their ages add up to 39.

How old is Quinn?

Answer: ___

(2)

---

19 A shop sells 3 pencils for 60p and 6 pencils for 79p.

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

Answer: ___

(2)

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20 Write the ratio 16:10 in its simplest form.

Answer: ___

(1)

---

21 Mia has 150 cherries. Mia gives 7/10 of them to a friend.

How many cherries does Mia give to the friend?

Answer: ___

(2)

---

22 Four numbers are 0.6, 0.56, 0.605 and 0.5.

(a) Write the four numbers in order, starting with the smallest. **(1)**

(b) Find the difference between the largest and the smallest of the four numbers. **(2)**

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23 The sum of 5 consecutive even numbers is 100.

What is the smallest of the 5 numbers?

Answer: ___

(2)

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Mark scheme · 10.3-10 Reasoning Practice Paper 10: Test Pack

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

Question 1

7000 cao	B1

Answer: **7000**

Question 2

68000 cao	B1

Answer: **68000**

Question 3

correct method shown, e.g. 300 x 6 + 40 x 6 + 7 x 6, or column multiplication oe	M1
2082 cao	A1

Answer: **2082**

Question 4

245 / 5 = 49 (value of one fifth) oe	M1
147 cao	A1

Answer: **147**

Question 5

(a) reverses the addition: 50 - 8 = 42 oe	M1
(a) 14 cao (42 / 3)	A1

(a) Answer: **14**

(b) lists multiples of 6 (6, 12, 18, ...) or divides 14 by 6, ft their number from part (a)	M1
(b) cso; No, because 14 is not in the 6 times table (6 x 2 = 12, 6 x 3 = 18, 14 lies between them), ft their number	A1

(b) Answer: **No, 14 is not a multiple of 6**

Question 6

15a cao	B1

Answer: **15a**

Question 7

subtracts or divides first	M1
x = 14 cao	A1

Answer: **x = 14**

Question 8

3p cao	B1

Answer: **3p**

Question 9

12 x 9 = 108 (area of large rectangle) oe	M1
4 x 3 = 12 (area removed) oe	M1
96 m^2 cao (108 - 12)	A1

Answer: **96 m^2**

Question 10

converts 3/4 and 17/25 to percentages: 75% and 68% oe	M1
converts 0.65 to 65% (or converts all values to a common format) cao	A1
compares all four percentages: 65%, 68%, 70%, 75%, dependent on correct conversions	dM1
0.65, 17/25, 70%, 3/4 cao (correct final order)	A1

Answer: **0.65, 17/25, 70%, 3/4**

Question 11

forms or tests an equation	M1
a = 11, b = 5 cao	A1

Answer: **a = 11, b = 5**

Question 12

4 x 9 or 4 x 5 seen	M1
56 cao	A1

Answer: **56**

Question 13

144 cao	B1

Answer: **144**

Question 14

4 parts = £8 so 1 part = £2 seen	M1
£12 cao	A1

Answer: **£12**

Question 15

tests pairs that add to the sum	M1
4 and 6 cao	A1

Answer: **4 and 6**

Question 16

uses the mean or tests numbers	M1
41 cao	A1

Answer: **41**

Question 17

collects the v terms or the numbers	M1
5n + 17 cao	A1

Answer: **5n + 17**

Question 18

3 equal parts seen	M1
13 cao	A1

Answer: **13**

Question 19

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

Answer: **6**

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Question 20

8:5 cao	**B1**

Answer: **8:5**

Question 21

150 divided by 10 = 15 seen	**M1**
105 cao	**A1**

Answer: **105**

Question 22

(a) 0.5, 0.56, 0.6, 0.605 cao (all four in correct order)	**B1**

(a) Answer: **0.5, 0.56, 0.6, 0.605**

(b) identifies largest as 0.605 and smallest as 0.5 oe	**M1**
(b) 0.105 cao	**A1**

(b) Answer: **0.105**

Question 23

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

Answer: **16**

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