

To be taken only between ... and ... 2013

LEVEL 2 CAMBRIDGE AWARD IN MATHEMATICS

0000/00: Calculations with whole numbers, ratio and direct proportion

Candidates answer on the Question Paper

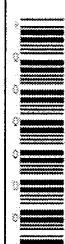
OCR Supplied Materials:

- None

Other Materials Required:

- None

Duration: 40 minutes



Candidate Forename						Candidate Surname					
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Centre Number						Candidate Number					
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INSTRUCTIONS TO EXAMS OFFICER/INVIGILATOR

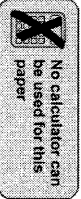
- Candidates may use paper to make notes during the assessment, but these notes should **not** be submitted to OCR with this answer booklet. Any notes submitted to OCR will **not** be marked.

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB Pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in bar codes.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of the question or part question.
- The total number of marks for this paper is 22.
- This document consists of 8 pages. Any blank pages are indicated.



For Examiner's Use	
Total	

This paper has been premodified for carrier language

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 DP/R/R21/08/12



Turn over

Answer all questions.

1 What is the correct way to express 1,020 in words?

Tick (✓) all that are correct.

- One thousand and twenty
- One point twenty
- One point zero two zero
- One point nought twenty

[1]

2 Write this calculation in figures:

Negative three subtract three point five equals negative six point five.

Answer

[1]

3 The temperature at noon was 8°C.

It fell by 15° between noon and midnight.

It then rose again by 4° by dawn.

What was the temperature at dawn?

Answer °C

[1]

4 Average monthly temperature at the South Pole:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	-28	-40	-54	-57	-57	-58	-60	-61	-59	-51	-30	-27

Between which two months does the temperature drop the most?

Answer

[1]

5 $2724 \times 25 =$

Answer

[1]

6 $3476 \div 22 =$

Answer

[1]

7 Estimate the answer to this calculation.

$$\frac{29.75 \times 489}{4.75}$$

Answer

[1]

8 Write down another calculation to check the following:

$$\frac{196}{7} = 28$$

Answer

[1]

9 Divide 84 in the ratio 1:2:3.

Answer

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[1]

10 A lottery win is shared in the ratio 2:3:4.

The total amount won was £3,600,000.

What was each share worth?

Answer £

<input type="text"/>	<input type="text"/>	<input type="text"/>
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[1]

11 Orange juice, pineapple juice and lemonade are mixed in the ratio 1:3:6 to make a drink.

What quantity of drink can be made with 1200 ml of lemonade?

Answer

[1]

12 The area of a field is divided in the ratio 2:3.

The smaller area is 200 m².

What is the area of the whole field?

Answer

[1]

13 For a recipe to make a Spanish omelette, the ratio of onions to potatoes to eggs is 2:1:6.

How many eggs are required for 4 onions?

Answer

[1]

- 14 Cement, sand and gravel are mixed in the ratio 1:3:6. How many bags of gravel should be mixed with one bag of sand?

Answer

[1]

- 15 A map has a scale of 1 cm to 5 km.

The distance on the map between two points is 21 cm.

What is the actual distance between the two points?

Answer

km

[1]

- 16 The height of the door of a house is 200 centimetres.

A drawing of the house has a scale of 1:50.

What is the height of the door on the drawing?

Answer

cm

[1]

- 17 It takes 8 trucks to move 96 m^2 of earth.

How many trucks are needed to move 24 m^2 of earth?

Answer

[1]

- 18 The label on a tin of varnish states 0.5 litres will cover 1.5 m^2 . How much varnish will be needed to cover 15 m^2 ?

Answer

litres

[1]

- 19 The cooking time for a joint of meat is 40 minutes for each kilogram.

An extra 15 minutes is then added.

Write a formula to find the cooking time for any joint of meat, using W for weight in kilograms and T for time in minutes.

Answer

[1]

- 20 To convert a temperature in degrees Fahrenheit to degrees Celsius, you must subtract 32, and divide the answer by 1.8.

Write this rule using F for the temperature in Fahrenheit and C for the temperature in Celsius.

Answer

[1]

- 21 In the following example, what is P when $a = 2$, $b = 4$, and $h = 6$?

$$P = (a + b)h$$

Answer

[1]

22 The formula for calculating the time taken for a journey is $T = \frac{D}{S}$

Where T = time (hours), D = distance (km) and S = speed (km/h).

You travel 75km at a speed of 15km/h.

How long will your journey take?

Answer

hours

[1]

END OF QUESTION PAPER