

Do not turn over or open this booklet until told to do so

CEA

Common Entrance Assessment

Paper 3

Saturday 1 December 2012

Time: 1 Hour

Please fill in the following from your admission card:

Your Candidate Number _____

Your Assessment Centre _____

Your Date of Birth _____

Answer all 58 questions in this booklet

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IN BY THE PUPIL

MATHEMATICS

Page	Marks	Score	Check
1	(3)		
2	(3)		
3	(2)		
7	(3)		
8	(3)		
9	(2)		
13	(4)		
14	(2)		
15	(2)		
19	(3)		
20	(4)		
21	(1)		
TOTAL 32			

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IN BY THE PUPIL

ENGLISH

Page	Marks	Score	Check
5	(5)		
6	(4)		
10	(1)		
11	(3)		
12	(1)		
16	(1)		
17	(5)		
18	(2)		
23	(6)		
24	(4)		
TOTAL 32			
TOTAL SCORE			

1. Each day Laura sleeps for 8 hours. A day is 24 hours. For what fraction of the day is she awake? Tick the correct box below.

- One third
- Two thirds
- One half
- One quarter
- Three quarters

2. Look at the table below. It shows the melting points of three substances. The three melting points are given in °C.

Substance	Melting Point °C
Helium	- 270
Mercury	- 39
Oxygen	- 218

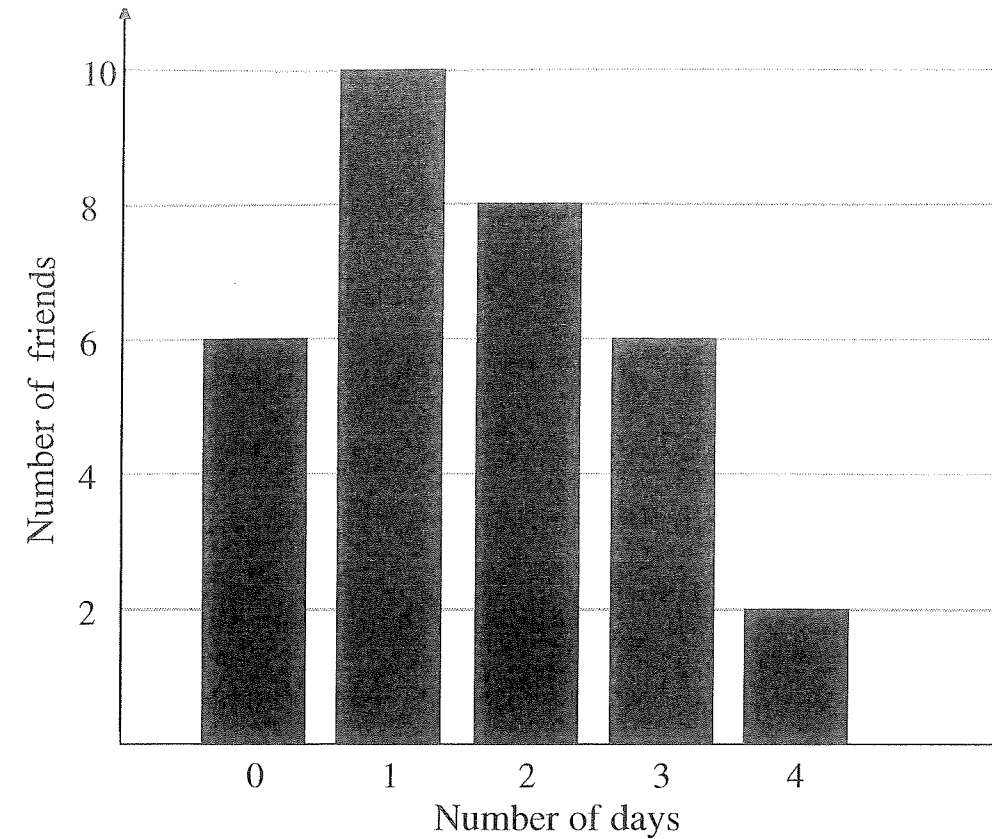
Which substance has the lowest melting point? Write your answer in the space below.

3. Room temperature is 20°C. How many degrees is this above the melting point of mercury? Write your answer in the space below.

_____ °C

Do not write in this column

4. Sarah asks her friends how many days in a week they eat takeaway food. The bar chart below shows the results.



How many friends did Sarah ask? Write your answer in the space below.

_____ friends

5. What percentage of Sarah's friends eat takeaway food 2 days per week? Write your answer in the space below.

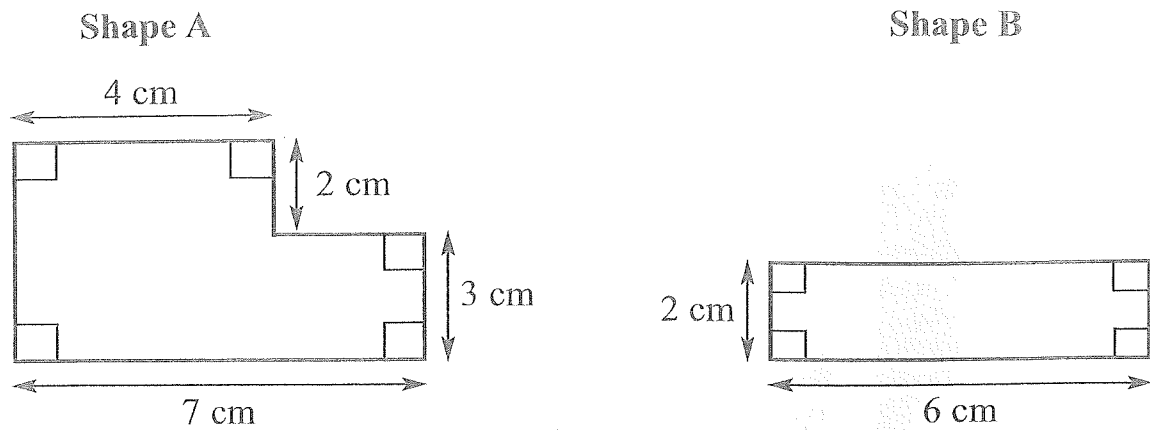
_____ %

6. A film is on Channel 1. Another film is on Channel 2. They both finish at the same time. The film on Channel 1 lasted 150 mins and started at 7pm. The film on Channel 2 lasted 120 mins. At what time did the film on Channel 2 start? Give your answer using the 12 hour clock. Write your answer in the space below.

_____ pm

Do not write in this column

7. Look at the shapes below



Find the area of Shape A. Write your answer in the space below.

_____ cm²

8. Look at Shape A and Shape B. Complete the sentence below by writing the correct fraction in the space provided.

The perimeter of Shape B is _____ of the perimeter of Shape A.

Do not write in this column	
(2)	

Freedom

Children wait patiently,
 watching the clock's hand
 tick slowly towards break time.
 The bell rings.

Maths books and class novels
 are discarded in the race
 to be first out the door
 and into the bustle of the playground.

School room doors burst open,
 expelling pupils in a frenzy.
 The stillness of this spring morning
 is shattered by the delighted shrieks

of children let off their lessons,
 and the pounding of trainers on tarmac.
 Balls are bounced, ropes are jumped,
 every second is savoured.

Teachers stroll to the staffroom.
 This period of release relished as much
 as the playground activities themselves.
 A seized opportunity to rest and recharge.

Through the chaos of the school yard
 the bell screams its call to class.
 Running children come to a halt mid-chase,
 laughter replaced by a chorus of sighs.

All too soon, the trudge to class begins.
 Lines snake through corridors,
 returning pupils and teachers alike
 to classrooms, learning continues

and the patient waiting
 for the clock's hand to
 tick slowly towards
 freedom once more.

Do not write in this column	

9. Look at the **three words** listed below. Find the word **opposite in meaning** to each of these words. The opposites you are looking for can be found in **verses two and three** of the poem. Write your answers in the spaces provided.

last _____
in _____
close _____

10. Look at **verse one**. Based on your reading of the poem, what are the children watching? Tick the correct answer below.

- The classroom clock.
- The teacher gesturing.
- The bell on the wall.

11. Which **word** in **verse three** of the poem tells us that the children are **happy** that the bell has rung? Write your answer in the space below.

12. Look at the **three statements** below. Only **one** of the statements is **true**. Based on your reading of the poem, tick the true statement.

- The poem is about afternoon in a school.
- The poem is about a school at break time.
- The poem is about the life of a teacher.

Do not write in this column

13. Look at **verse five** of the poem. Based on your reading of this verse, which **one** of the three statements below is **true**? Tick the correct answer.

- The teachers hurry to the staffroom at break time.
- The teachers like break time as much as the pupils.
- The teachers become more anxious at break time.

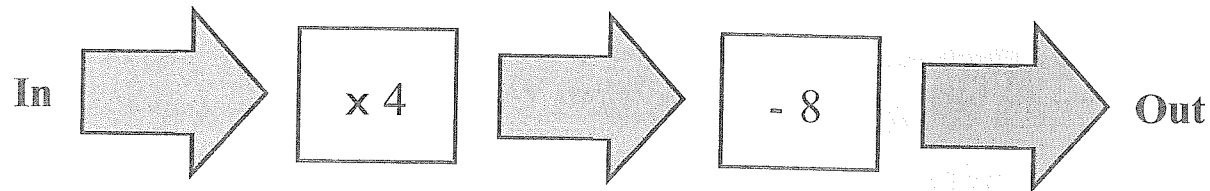
14. Look at **verse six**. Which **four word phrase** tells us that **the children are unhappy** that the bell has rung a second time? Write your answer in the space below.

15. In which **season** is the poem set? Write your answer in the space below.

Do not write in this column

16. In a triangle, one of the angles is twice the size of another angle. The third angle is a right angle. What size is the smallest angle? Write your answer in the space below.

17. Look at the function machine below.



Use this function machine to complete the table below.

In	Out
10	32
12	
	0

18. John, Sam and Sean work as waiters. The table below shows how much they were paid, the hours they worked, and the amount they were paid per hour. The table has two blank spaces. Complete the table.

Waiter	Pay	Hours worked	Pay per hour
John	£56.00	8	£7.00
Sam	£72.00	9	
Sean	£76.50		£8.50

Do not write in this column

19. A list of 6 numbers is written in descending order. There are 4 numbers missing from the list.

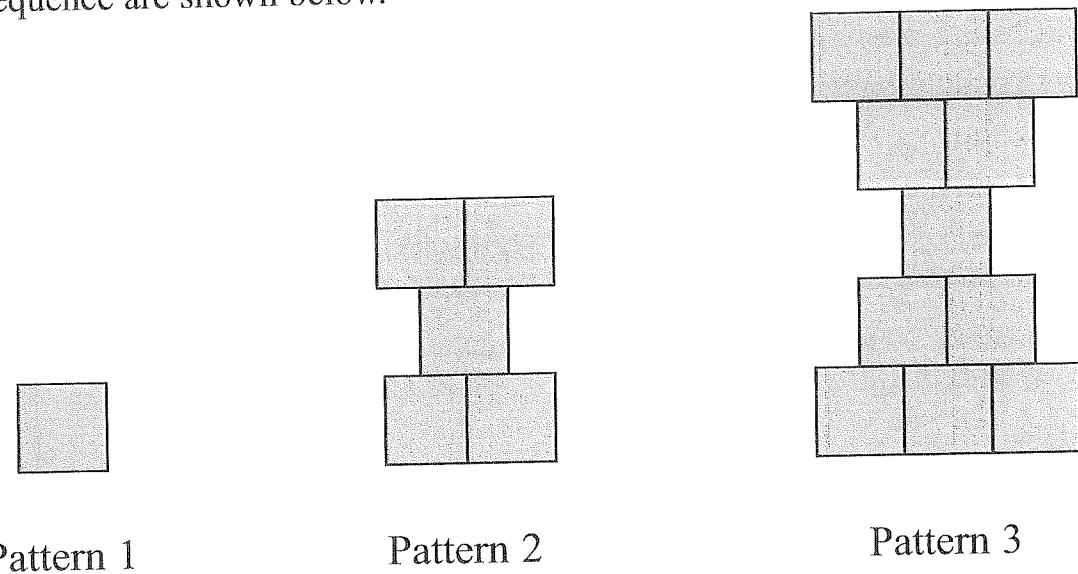
_____ 10.05 _____ _____ 6.83

Now look at the 4 numbers in the box below.

9.88	10.1	7.06	7.2
------	------	------	-----

Use all the numbers in the box to complete the list. Write the 4 correct numbers in the spaces in the list.

20. Patterns are formed from square tiles. The first three patterns in a sequence are shown below.



Pattern 1

Pattern 2

Pattern 3

How many tiles are needed to make the fourth pattern? Write your answer in the space below.

_____ tiles

21. How many more tiles are needed for the fifth pattern than the fourth pattern? Write your answer in the space below.

_____ tiles

Do not write in this column

22. There are 18 boys and 2 girls in a class. What fraction of the class is boys? Tick the correct box below.

- $\frac{1}{9}$
- $\frac{18}{2}$
- $\frac{9}{10}$
- $\frac{16}{18}$

23. What percentage of the class is girls? Write your answer in the space below.

_____ %

Do not write in this column

The passage you are about to read contains five errors. Read the passage and then answer the questions that follow it.

Asthma

Asthma is a condition affecting the lungs which, as yet, has no cure. (line 1)
 It is a common childhood condition that can be well controlled (line 2)
 in most sufferers, The severity of asthma symptoms varies between (line 3)
 children, from very mild to more severe. In the UK, over 1.1 million (line 4)
 children have asthma. It is more common in young boys than young (line 5)
 girls. However, this changes as children get older and, after puberty, (line 6)
 asthma is more common in girls. (line 7)

During the teenage years, the symptoms of asthma may disappear. (line 8)
 The cause of asthma is not fully understood. It is known that asthma (line 9)
 often runs in families and a child is more likely to have asthma if one (line 10)
 or both parents have the condition. Asthma attacks can be triggered (line 11)
 by: exercise, dust mites, animal fur, grass pollen, tree pollen, (line 12)
 tobacco smoke, and other allergens. Asthmatics airways are (line 13)
 affected by these triggers and they find it difficult to breathe. (line 14)
 Do you know what to do if this happens. If you're an asthma sufferer (line 15)
 then the answer is probably yes, but what about friends and family? (line 16)

24. Each line of the passage is numbered. A word has been used incorrectly in the passage. Tick the number of the line where the error was made.

- line 1
- line 12
- line 13
- line 16

Do not write in this column

25. A question mark is needed instead of a full stop in one line of the passage. Tick the number of the line where the question mark is needed.

line 4

line 7

line 9

line 15

26. There is a spelling error in one of the lines. Tick the number of the line containing the spelling error.

line 8

line 10

line 14

line 15

27. There is an apostrophe missing from one of the words in the passage. Tick the number of the line containing the word with the missing apostrophe.

line 11

line 13

line 14

line 16

Do not write in this column

28. In one line of the passage a comma has been used incorrectly. A full stop rather than a comma should have been used. Tick the number of the line in which this error was made.

line 3

line 4

line 8

line 13

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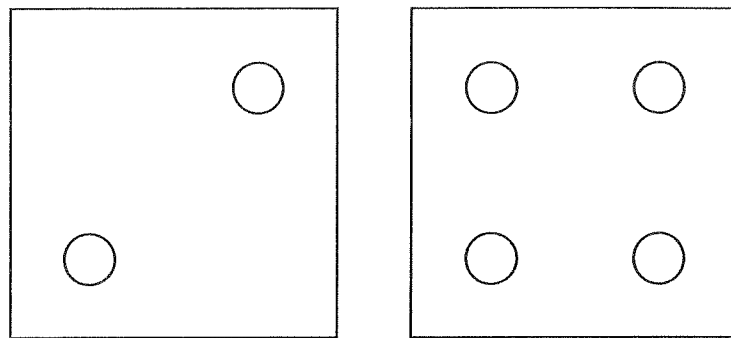
29. There are streetlights every 20 m along a straight road. What is the distance between the first and fifth streetlight? Write your answer in the space below.

_____ metres

30. What is the distance between the third and twenty-fourth streetlight? Write your answer in the space below.

_____ metres

31. The figure below shows 2 faces of a die. In the spaces below, write down the number of lines of symmetry for face A and face B.



Face A

Face B

Face A has _____ lines of symmetry.

Face B has _____ lines of symmetry.

32. Football pitches are rectangular. The length should be at least 100 metres. The width should be at least 50 metres. What is the area of the smallest possible football pitch? Write your answer in the space below.

_____ m²

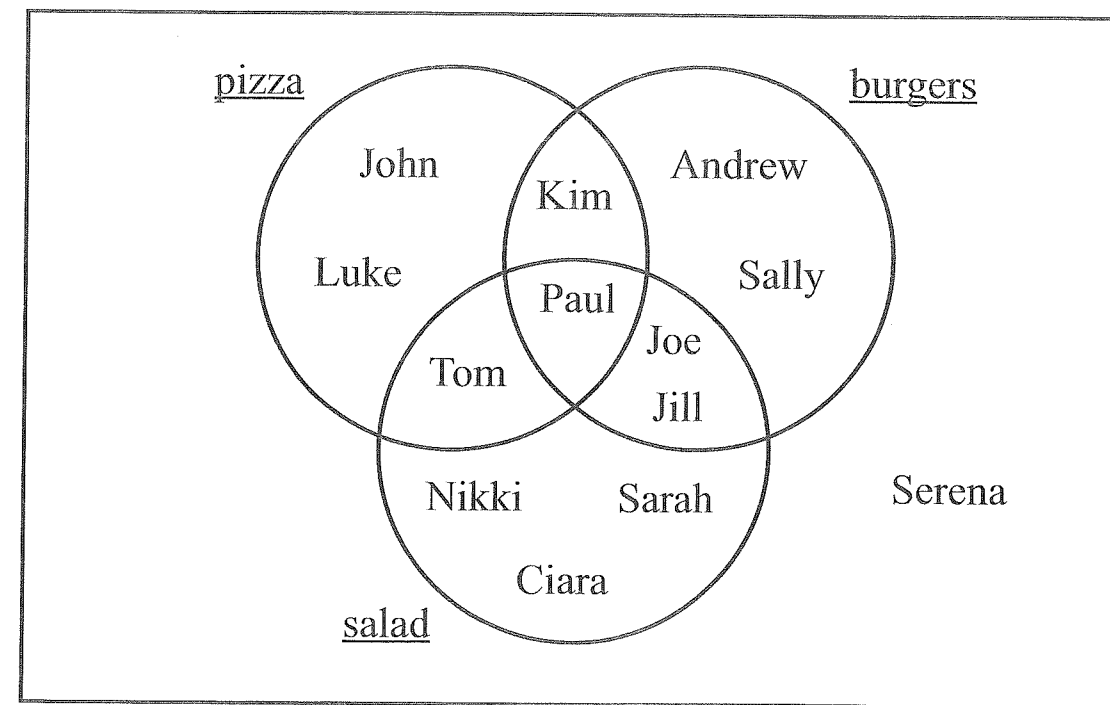
Do not write in this column

33. Bethany had 29 coins in her purse. She had

- 3 10p coins
- 14 5p coins
- 8 2p coins
- 4 1p coins

At the bank, Bethany exchanged these coins for 20p coins. How many 20p coins did she get? Write your answer in the space below.

34. A class survey was carried out to find out the foods 13 different pupils enjoy. The Venn diagram below shows the results of the survey. Look at the 4 statements below. Using the Venn diagram, tick True or False for each statement.



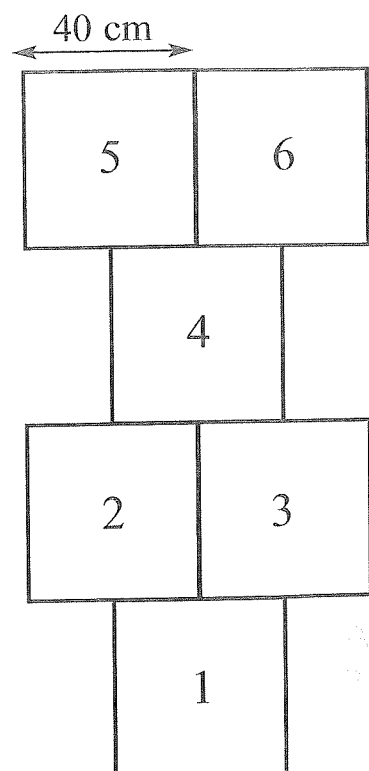
- | | True | False |
|-----------------------------|--------------------------|--------------------------|
| Sally and Joe like burgers | <input type="checkbox"/> | <input type="checkbox"/> |
| Serena likes salad | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 people like burgers | <input type="checkbox"/> | <input type="checkbox"/> |
| Sarah likes salad and pizza | <input type="checkbox"/> | <input type="checkbox"/> |

Do not write in this column

44. A loaf of bread contains 20 slices of bread. Every day Conor uses 2 slices to make toast and 2 slices to make a sandwich. How many loaves of bread does Conor use in 15 days? Write your answer in the space below.

_____ loaves

45. Look at the diagram of a hopscotch grid below. It is made up of identical squares. Each square has a number written in it. The length of the side of each square is 40 cm.



What is the total area of the squares which have odd numbers written in them? Write your answer in the space below.

_____ cm²

46. What is the perimeter of the hopscotch grid? Write your answer in the space below.

_____ cm

Do not write in this column

47. 5 miles is the same distance as 8 kilometres. What distance in kilometres is the same as 7.5 miles? Write your answer in the space below.

_____ kilometres

48. A number is a **palindrome** if it looks the same backwards as forwards. For example, the three numbers: 232, 16061 and 11311 are all palindromes. What is the **biggest** palindrome which is less than 800? Write your answer in the space below.

49. How many palindromes are there between 250 and 300? Write your answer in the space below.

50. Look at the 3 statements below about the angle a° .

a° is an obtuse angle

a is a multiple of 50

a is a multiple of 6

What is the value of a ? Write your answer in the space below.

Do not write in this column

52. Look at **paragraph one** of the passage. Which **two words** in this paragraph tell us that Amy is **nervous** about going into the playground? Tick the two words below.

- cautiously
- glanced
- guarded
- stuck

53. Which word in **paragraph two** of the passage is **closest in meaning** to **followers**? Write your answer in the space below.

54. In **paragraph three** of the passage the writer describes Amy's legs as feeling "like jelly". A **simile** is used when the writer compares one thing to another using the words '**like**' or '**as**'. What other phrase of **five or six words** in this paragraph is also a simile? Write your answer in the space below.

55. Look at **paragraph four** of the passage. Which **two word phrase** tells us that Amy was the **only pupil in the 'out' crowd**? Write your answer in the space below.

Do not write in this column

56. The four words **cautiously**, **playground**, **fabulous** and **glanced** are used in the passage. Tick the correct box to show how each one has been used.

	verb	noun	adjective	adverb
cautiously				
playground				
fabulous				
glanced				

57. **Based on your reading of the passage**, what does Amy think about Sarah? Tick the **best** answer below.

- Amy thinks Sarah wants to be her friend.
- Amy thinks Sarah is a very caring person.
- Amy thinks Sarah has an aggressive attitude.

58. In the passage we are told that Amy's legs felt like they "**were about to buckle**". What is the meaning of this phrase? Tick the **best** answer below.

- Her belt entangled her legs.
- Her legs may not hold her up.
- She used her belt for defence.

Do not write in this column