

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

CEA

Common Entrance Assessment

Paper 3

Saturday 5 December 2009

Time: 1 Hour

Please fill in the following from your admission card:

Your Candidate Number _____

Your Assessment Centre _____

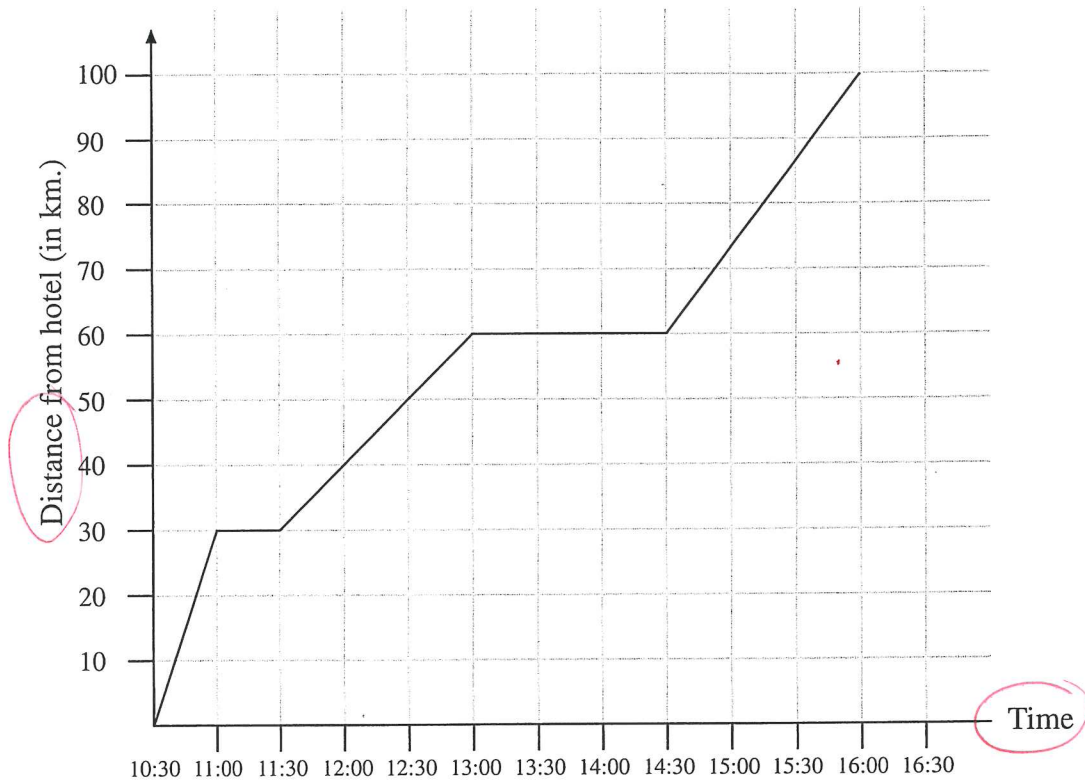
Your Date of Birth _____

Answer all 58 questions in this booklet

NOT TO BE FILLED IN BY THE PUPIL			
MATHEMATICS			
Page	Marks	Score	Check
1	(3)		
2	(5)		
6	(4)		
7	(3)		
8	(1)		
11	(2)		
12	(3)		
13	(3)		
17	(2)		
18	(2)		
19	(4)		
TOTAL 32			

NOT TO BE FILLED IN BY THE PUPIL			
ENGLISH			
Page	Marks	Score	Check
3	(1)		
4	(4)		
5	(3)		
9	(2)		
10	(3)		
15	(5)		
16	(4)		
20	(2)		
21	(4)		
22	(4)		
TOTAL 32			
TOTAL SCORE			

1. The Hughes family are on holiday. They start from their hotel and travel by car to visit some local villages. Their journey is shown in the graph below.



How far have they travelled from their hotel at 13:00? Write your answer in the space below.

60 km

2. How long did the Hughes family stop for morning coffee? Write your answer in the space below.

30 mins (11:00 - 11:30)

3. Write the correct number of pence in the space below.

$27 \times 98p = £27 - \underline{54} p$

$98p = £1.00 - 2p$

$27 \times 2p = 54p$

Do not write in this column

1

1

1

(3)

4. A metal box weighs 82 grams.
What is the weight of 23 metal boxes? Write your answer **in kilograms** in the space below.

1.886 kg

$$\begin{array}{r} 82 \\ \times 23 \\ \hline 246 \\ +1640 \\ \hline 1886 \end{array}$$

1 kg = 1000g
50
1886g = 1kg 886g
= 1.886g

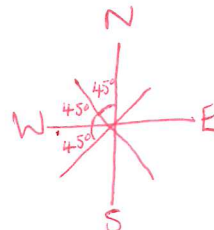
5. I face North. I turn **135° anti-clockwise**. In what direction do I now face? Tick the correct answer.

South-East

South-West

North-East

North-West



Always draw out a compass rose like this!

6. Look at the number written in words below:

four hundred and seven and a half

What is this number as a **decimal number**? Write your answer in the space below.

407.5 or 407.50

7. Look at the multiplication below:

$82 \times 27.5 = 2255$

Use this multiplication to help you to do the calculation below.
Write your answer in the space provided.

$8.2 \times 27.5 = \underline{225.5}$

÷10

÷10

8. Rose thinks of a number. She multiplies it by 8 and then adds 3. Her answer is 147. What number did Rose think of?
Write your answer in the space below. **REVERSE**

18

$\square \times 8 = \square + 3 = 147$

$147 - 3 = 144 \div 8 = 18$

$$\begin{array}{r} 018 \\ 8 \overline{)144} \\ \underline{8} \\ 64 \\ \underline{64} \\ 0 \end{array}$$

Do not write in this column

1

1

1

1

1

The Lady and the Bear

- 1 A Lady came to a Bear by a Stream.
‘O why are you fishing that way?
Tell me, dear Bear, there by the Stream,
Why are you fishing that way?’

- 2 ‘I am what is known as a Biddly Bear -
That’s why I’m fishing this way.
We Biddly’s are Pee-culiar Bears.
And so - I’m fishing this way.’

- 3 ‘And besides, it seems there’s a Law:
A most, most exactious Law
Says a Bear
Doesn’t dare
Doesn’t dare
Doesn’t DARE
Use a Hook or a Line,
Or an old piece of Twine,
Not even the end of his Claw, Claw, Claw,
Not even the end of his Claw.
Yes, a Bear has to fish with his Paw, Paw, Paw.
A Bear has to fish with his Paw.’

- 4 ‘O it’s Wonderful how with a flick of your Wrist,
You can fish out a fish, out a fish, out a fish,
If I were a fish I just couldn’t resist
You, when you are fishing that way, that way,
When you are fishing that way.’

- 5 And at that the Lady slipped from the Bank
And fell in the Stream still clutching a Plank,
But the Bear just sat there until she Sank;
As he went on fishing his way, his way,
As he went on fishing his way.

Theodore Roethke

9. Look at the third verse of the poem. In this verse, two words rhyme with the word law. Write the two words in the spaces below.

claw

paw

both

Do not write
in this column

1	
	(1)

10. The poet tells us that the bear's law of fishing is **very precise**. Find the **word** which the poet uses to describe the bear's law of fishing. Write the word in the space below.

exactious

11. In the **fourth verse** of the poem, the lady imagines what it would be like to be a fish. What phrase of **three or four words** does the lady use to describe how the fish is **strongly tempted to swim** towards the bear? Write the phrase in the space below.

(1) just couldn't resist (you)

answer can't include both I and you (up to 4 words)

12. What **word** in the **last verse** shows that the lady, in desperation, grasped the plank tightly? Write the **word** in the space below.

clutching

13. **According to the poem**, how do bears catch fish? Tick the correct answer.

They use fallen branches to make a fishing rod

They use their paws to catch fish within reach

They use old twine to make a fishing line

They use their claws as fish hooks

Do not write in this column

1

1

1

1

14. The words **they're**, **their** and **there** sound the same but are used differently. Complete the sentences below correctly by writing the word **they're**, **their** or **there** in the space provided.

The bear was there fishing by the stream.

When it comes to fishing, bears have their own method. } All 3

Bears stay close to the stream when they're fishing.

15. The words **fell**, **exactionous**, **bear** and **there** are used in the poem. Tick the correct box to show whether each one has been used in the poem as a **noun**, **verb**, **adverb** or **adjective**.

	noun	verb	adverb	adjective
fell		✓		
exactionous				✓
bear	✓			
there			✓	

All 4 = 2 marks
2 or 3 = 1 mark

Do not write in this column

1

1

16. Look at the statement below. There is a **missing number**.
What number makes this statement true?
Write the number in the space below.

125 is 25 % of 500

% = out of 100
Equivalent fraction
$$\frac{125}{500} = \frac{25}{100}$$

025
$$5 \overline{)125}$$

17. Look at the statement below. Find the number that makes the statement true. Write your answer in the space below.

If $18 \times d = 6$
then $6 \times d = \underline{2}$

18. Here are the scores of five pupils in a test.

Ruth 45 marks
Nigel 35 marks
Ciaran 45 marks
Louise 20 marks
Ciara + 40 marks
185

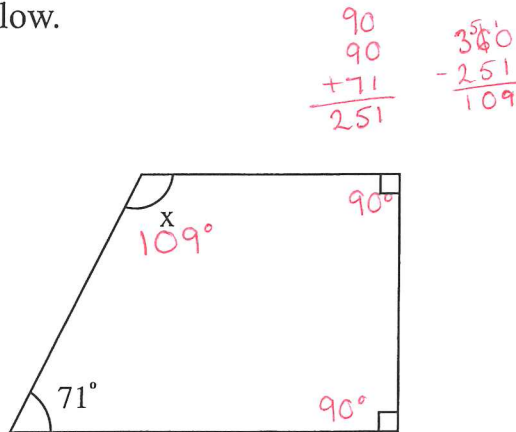
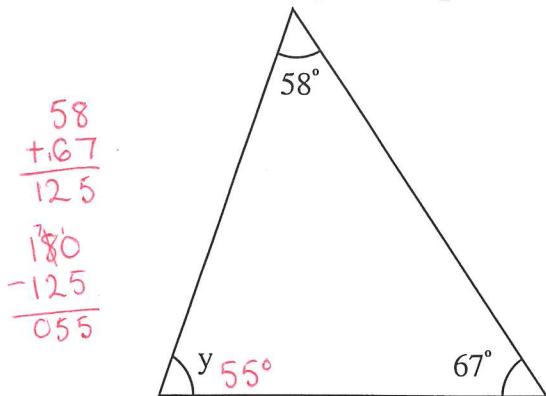
Add all 5 scores then ÷ by 5
$$037$$

$$5 \overline{)185}$$

What is the **mean** (average) mark for the pupils?
Write your answer in the space below.

37 marks

19. Look at the triangle and quadrilateral below.



By how many degrees is angle x greater than angle y?
Write your answer in the space below.

54 °

$$109$$

$$- 55$$

$$\hline 54$$

Do not write in this column

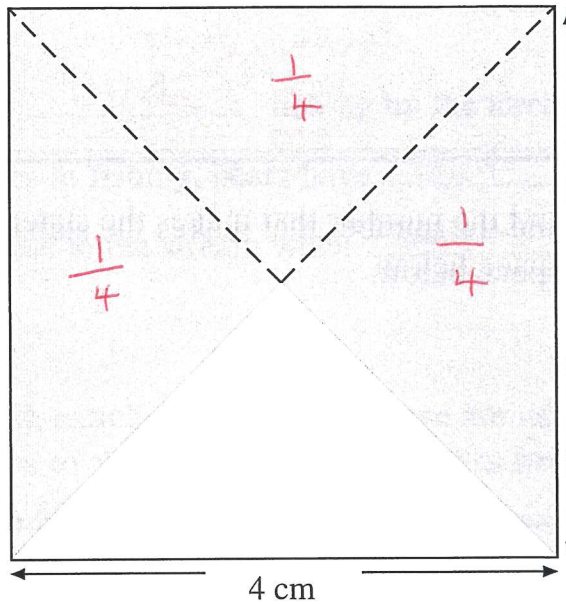
1

1

1

1

20. A square tile is shown below. Find the **area** of the **shaded part** of the square tile.



area of whole tile
 $= 4 \times 4 = 16 \text{ cm}^2$

4 cm $\frac{3}{4}$ is shaded

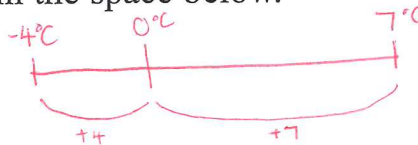
$16 \div 4 = 4 \times 3 = 12$

Write your answer in the space below.

12 cm^2

21. The temperature in Toronto is -4°C and the temperature in Venice is 7°C . What is the **difference in temperature** between Toronto and Venice? Write your answer in the space below.

11 $^\circ\text{C}$



22. Look at the three statements below:

$^{15} x + 12 = 27$

$^{13} y \times 2 = 26$

$^9 z - 3 = 6$

Which letter has the smallest value? Tick a box below to choose x, y or z.

x

y

z

Do not write
in this column

1

1

1

23. A teacher is photocopying a test. The cost of 202 photocopies is £313. What is the cost of 1212 photocopies? Write your answer in the space below.

£ 1878

← six times bigger

$$\begin{array}{r} 313 \\ \times 6 \\ \hline 1878 \end{array}$$

Do not write
in this column

1

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

The virtual canteen

A company in Dublin is making healthy meals for (line 1)
 delivery to schools. Parents use the company's website (line 2)
 to order healthy school lunches for their children. The (line 3)
 company then delivers these lunches directly to the school. (line 4)

Jamie Oliver has called for schools to provide there (line 5)
 pupils with healthy, nutritious meals. Parents who use (line 6)
 the website can be sure their children are eating healthy (line 7)
 food containing ingredients that meet the school's healthy (line 8)
 eating policy. (line 9)

Each lunch delivered to the school has the pupil's name (line 10)
 attached, so that the school can easily distribute the (line 11)
 lunches. But what about children who can't afford these (line 12)
 healthy lunches. It would be a pity if only the children (line 13)
 of wealthy parents benefited from Jamie Oliver's school (line 14)
 dinners campaign. Surely all children deserve to have a (line 15)
 satisfying, healthy lunch at school? (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 5 their
- line 6
- line 11

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 6
- line 9
- line 13 lunches?
- line 15

Do not write in this column

1	
1	
(2)	

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

line 1

line 4

line 6

line 15 *campaign*

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 2

line 8

line 14 *Oliver's*

line 15

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 *children.*

line 6

line 11

line 16

Do not write
in this column

1

1

1

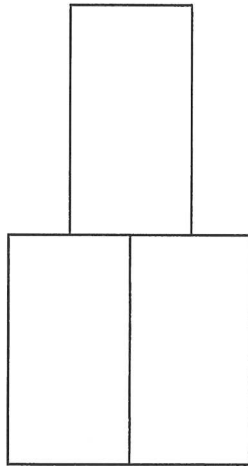
29. A dress costs £95. It is **reduced** in price by 20% in a sale. What is the price of the dress in the sale? Write your answer in the space below.

£ 76

$$\begin{array}{r} 95 \\ -19 \\ \hline 76 \end{array}$$

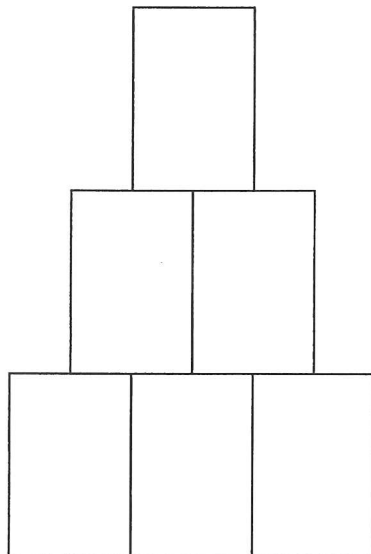
Do not write in this column

30. Paul is using tins of peas to make "triangular" shapes. Paul uses **3 tins** to make the shape below. There are **2 tins in the bottom row**. Paul calls this shape a "triangle" of tins.



1, 2 = 2 tins

Paul uses **6 tins** to make a bigger triangle of tins. The new triangle is shown below. There are **3 tins in the bottom row** of this triangle.

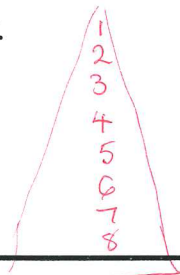


1, 2 = 2 tins

1, 2, 3 = 3 tins

How many tins does Paul need to make a triangle with **8 tins in the bottom row**? Write your answer in the space below.

36 tins



31. Paul uses **21 tins** to make a new triangle. **How many tins** are in the **bottom row**? Write your answer in the space below.

6 tins

$$1 + 2 + 3 + 4 + 5 + 6 = 21$$

3 6 10 15

32. Look at the four numbers below.

0.320 0.400 0.333
0.32 **0.4** **0.127** $\frac{1}{3}$

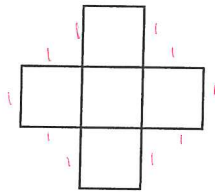
Put them **in order** from **smallest** to **largest**. Write the numbers in the space below. The smallest has been done for you.

0.127 (0.333) .
0.32 $\frac{1}{3}$ 0.4

smallest **largest**

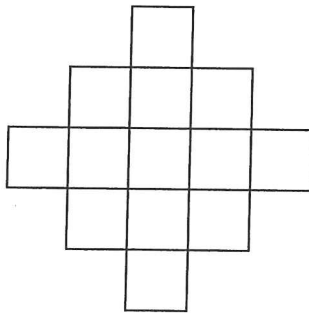
33. Megan is making patterns using square tiles. The **length of a side** of one of these square tiles is **1 cm**.

Look at the pattern below. This is the first pattern in a series of patterns that Megan makes. You can see that she uses **5 tiles** to make the **first pattern**.



The **perimeter** of the first pattern is **12 cm**. *distance around outside edge*
 The **area** of the pattern is **5 cm²**.

Look at the pattern below. This is the **second pattern** in the series. You can see that Megan uses **13 tiles** to make the second pattern.



What is the **perimeter** of the second pattern? Write your answer in the space below.

20 cm

Do not write in this column

1

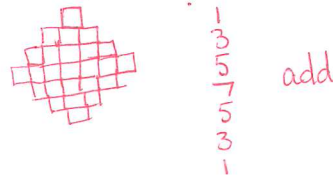
1

1

(3)

34. Megan adds more tiles to make the third pattern in the series. What is the **area** of the **third pattern**? Write your answer in the space below.

25 cm²



35. Look at the rule below:

Multiply the previous number by 3 and add $\frac{1}{2}$

Barry uses this rule to write a **sequence of four numbers**.

The **first** number Barry writes is **5**. The **third** number he writes is **47**.

Write the **two missing numbers** in the spaces below.

$5 \times 3 = 15$
 $5 \quad 15\frac{1}{2} \quad 47 \quad 141\frac{1}{2}$
 or 15.5 or 141.5 $47 \times 3 = 141$
 $15\frac{1}{2} \times 3 = 46\frac{1}{2} + \frac{1}{2} = 47$
 both

36. Boxes A, B and C contain coloured balls. The number of balls in each box is:

Box A

3 green balls

4 red balls

2 white balls

Box B

2 green balls

1 red ball

1 white ball

Box C

5 green balls

2 red balls

8 white balls

green
= $\frac{3}{9}$
= $\frac{1}{3}$
unlikely

$\frac{2}{4}$
even
chance

$\frac{5}{15}$
= $\frac{1}{3}$
unlikely

Sean closes his eyes and takes a ball from each box.

From which box is he most likely to choose a green ball?

Write the letter **A**, **B** or **C** in the space below.

Box B

Do not write in this column

Uncle Jack and the Other Man

Do not write
in this column

- 1 I know a man who works on the land
Has a barrel for a chest and a huge flat hand
Can hurl a wheat-bag over a fence.
- 2 I like to watch him working in the sun
And see the little drops of perspiration run
Like bright flies slowly down his arms.
- 3 There was a story once that he took
A tight grip of the London phone book
And pulled it in half - but I don't believe it
- 4 Because he *never* boasts - it was Bongo Grass
Who invented that story, he's the worst in class
For pranks and fibs and exaggerations.
- 5 But he's certainly strong, and a little strange too:
When you pass him by he hardly speaks to you,
But pats his dogs or makes a cigarette.
- 6 He takes no interest in a conversation.
Not like my Uncle Jack. He works at the station
And is always talking when he finds a chance.
- 7 If you pay him a visit in his room at night
He'll build up the fire and in the leaping light
He'll tell you stories of ghosts and devils.
- 8 Sometimes I stay for hours.
 Uncle Jack
Has skinny white legs and a painful back:
He can't lift a bag or tear the phone book
- 9 And yet, he's always interesting. I suppose
I'd like to be like Uncle Jack because he knows
So much... but I'd also like to grow - so I can
Hurl things about like that other man.

Keith Harrison

Do not write in this column

37. What **word** in **verse four** of the poem tells you that Bongo Grass is a schoolboy? Write your answer in the space below.

class

1

38. Look at **verse five** of the poem. The first line of the verse is, "But he's certainly strong, and a little strange too." Who is the author referring to in this line? Tick the **best** answer.

Bongo Grass

Uncle Jack

The other man

1

39. Find the **word** which is **closest in meaning** to each of the words below. Each word you're searching for appears somewhere in the **first three verses** of the poem. Write your chosen word in the space provided.

enormous huge

throw hurl

sweat perspiration

grasp grip

All 4 = 2 marks
3 = 1 mark

1

1

40. Some statements about **the other man** are given below. **According to the poem**, only **two** of these statements are **true**. Tick the two true statements.

He smokes

He has a painful back

He works at the station

He is very strong

He is talkative

both

1

44. Fish costs £9.60 for a **kilogram**. *1kg = 1000g*
 How much does **250 grams** of fish cost? *250g = $\frac{1}{4}$ kg*
 Write your answer in the space below.

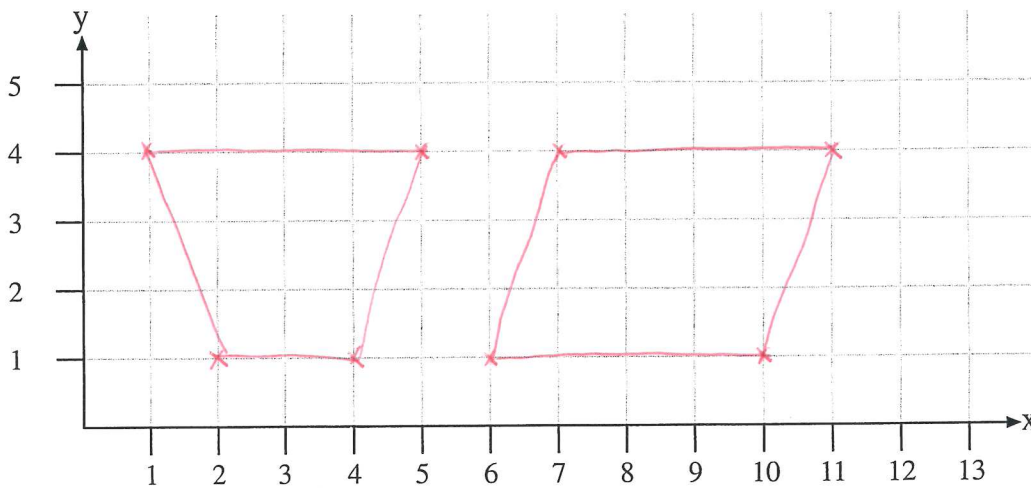
£ 2.40

$$\begin{array}{r} 2.40 \\ 4 \overline{) 9.60} \end{array}$$

Do not write
in this column

1

45. In this question you may use the grid below to plot points. In each of the statements (a), (b) and (c) below you will be given the coordinates of four points. By plotting these four points and joining them **in order** you will be able to draw a **quadrilateral**.



Here are the names of five quadrilaterals:

square **rectangle** **parallelogram** **kite** **trapezium**

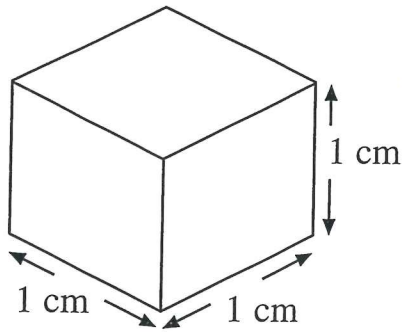
Look at the statements below. Make statements (b) and (c) true by **choosing a name** from the five above. Write **the name** in the space provided.

Statement (a) has been done for you.

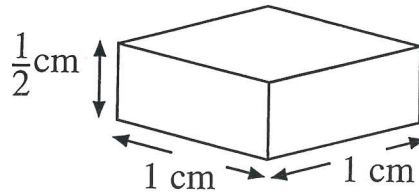
- (a) (4, 0) (4, 3) (1, 3) and (1, 0) join to make a **square** *both*
- (b) (2, 1) (4, 1) (5, 4) and (1, 4) join to make a trapezium
- (c) (6, 1) (10, 1) (11, 4) and (7, 4) join to make a parallelogram

1

46. Anne plays with red bricks and blue bricks. Look at the red brick and the blue brick below. The red brick is a cube and the blue brick is a cuboid.

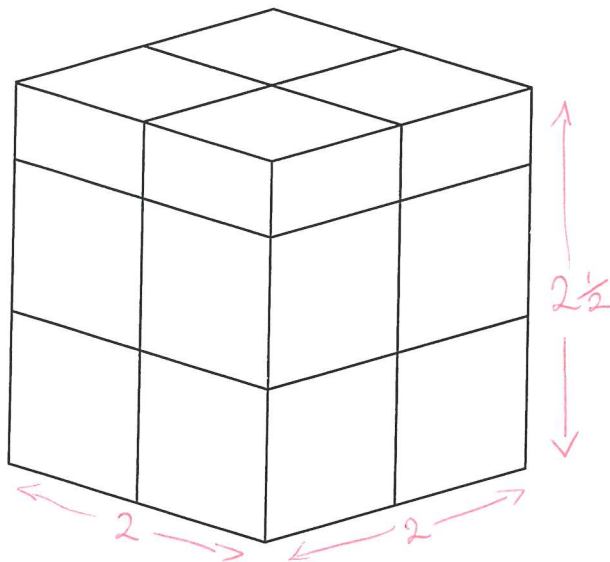


Red Brick



Blue Brick

Anne uses the bricks to build the block below. The block has two layers of red bricks and a layer of blue bricks on top.



What is the **volume** of the block? Write your answer in the space below.

10 cm³

$2\frac{1}{2} \times 2 = 5 \times 2 = 10$

47. Lesley leaves school at **3.30 pm** and cycles **at a steady speed** to her friend's house. Lesley's friend lives **3 kilometres** from the school. Lesley arrives at her friend's house at **3.40 pm**. **How many metres** does Lesley cycle **in one minute**?
Write your answer in the space below.

$10 \text{ mins} = 3000 \text{ m}$
 $1 \text{ min} = 3000 \div 10$

300 metres

Do not write in this column

1

1

Do not write in this column

48. Look at the four numbers below

0.09894

0.9894

9.894

98.94

Rounding

The answer to the calculation below is one of the four numbers. Write the number you have chosen in the space below.

$9.7 \times 102 \div 100 = \underline{9.894}$

49. One of the decimal numbers below is **bigger than $4\frac{2}{3}$ and smaller than $4\frac{3}{4}$** Tick the correct answer.

4.75

4.53

4.63

4.73

4.83

4.67

50. I get out of school at **3.32pm**. There is a bus stop just outside my school. A sign at the bus stop tells me that buses arrive at the bus stop at the times below:

15:32

13:25

14:10

15:30

15:45

16:10

What is the **shortest time** I must wait for a bus? Write your answer in the space below.

13 minutes

51. I have saved **24 coins** in my money box. My money box contains **at least 3 of each** of the following coins:

$x3 = 15p$
5p

$x3 = 30p$
10p

$x3 = 60p$
20p

$x3 = \pounds 1.50$
50p

$x3 = \pounds 3$
£1

$x9 = \pounds 18$
£2

What is the **greatest** amount of money I could have in my money box? Write your answer in the space below.

£ 23.55

53. Only one of the two statements below is true. **Based on your reading of the passage**, tick the **true** statement.

Grundeis and the man in the bowler hat are the same person

Grundeis and the man in the bowler hat are different people

54. Write the **past tense** of each of the following words in the space provided. Take care with your spelling. The first one has been done for you.

slip slipped
 remember remembered
 travel travelled
 going went
 meet met

*All 4
No spelling mistakes
allowed*

55. Find the **words** in the **third** paragraph **closest in meaning** to the following words. Write your answer in the space provided.

coat jacket
 foolish silly
 vacant empty

All 3

56. Write the words below in alphabetical order in the space provided. The first one has been done for you.

course compartment conceal coin convict

(1) coin
 (2) compartment
 (3) conceal
 (4) convict
 (5) course

All 4

Do not write in this column	
1	
1	
1	
1	
(4)	

57. Based on what you have read, tick the correct box to show whether the following statements are true or false.

	True	False
The man in the bowler hat gave Emil the money	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grundeis got off the train at Friedrich Street station	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Emil was in his seat when he woke up	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grundeis snored as he slept	<input checked="" type="checkbox"/>	<input type="checkbox"/>

All 4 = 2
2 or 3 = 1

Do not write in this column

1	--
1	--

58. Look at the five sentences below. Use your understanding of the passage to put these events in the order in which they happened. Use the numbers 1 to 5 to show the order. The first event has been done for you.

Grundeis falls asleep.	2
The train leaves the station.	1
Emil falls asleep.	3
The train arrives at Friedrich Street station.	5
Emil realises his money is missing.	4

All = 2
1 or 2 mistakes = 1

1	--
1	--