

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

CEA

Common Entrance Assessment

Paper 2

Saturday 27 November 2010

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	(4)			
2	(4)			
6	(4)			
7	(2)			
8	(2)			
12	(3)			
13	(4)			
14	(1)			
18	(2)			
19	(3)			
20	(3)			
TOTAL 32				

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IN BY THE PUPIL

ENGLISH

Page	Marks	Score	Check	
4	(5)			
5	(4)			
9	(1)			
10	(3)			
11	(1)			
15	(3)			
16	(3)			
17	(3)			
21	(1)			
22	(5)			
23	(3)			
TOTAL 32				
TOTAL SCORE				

1. Look at the 2 calculations below. Complete each calculation by finding the missing number. Write your answers in the spaces below.

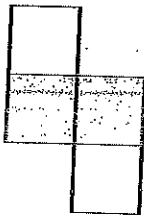
(a) _____ + 156 = 425

(b) 7 x _____ = 952

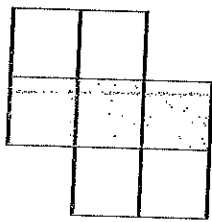
2. The temperature in the **fridge** section of a fridge-freezer is 5 °C. The temperature in the **freezer** section is 23°C lower. What is the temperature in the freezer section? Write your answer in the space below.

_____ °C

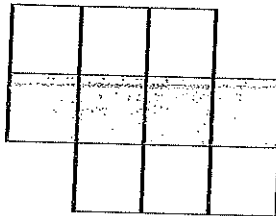
3. The series of patterns below is made using a **mixture** of white and shaded square tiles. **Pattern 1** contains 4 tiles. It has **two white** and **two shaded** tiles.



Pattern 1



Pattern 2



Pattern 3

If this series of patterns is continued, what is the total number of tiles in Pattern 6? Write your answer in the space below.

_____ tiles

4. Another pattern in the same series has 11 shaded tiles. What is the total number of tiles in this pattern? Write your answer in the space below.

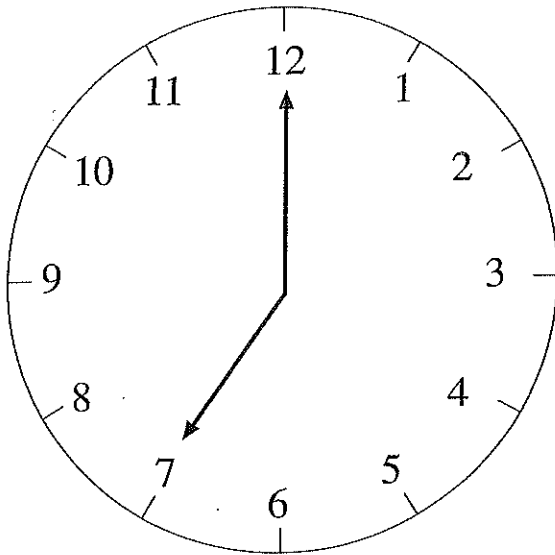
_____ tiles

Do not write in this column

5. Look at Pattern 3 in question 3. In **Pattern 3** what **percentage** of the **pattern** is **shaded**? Write your answer in the space below.

_____ %

6. Look at the clock face below.



The hands of the clock show that the time is **7 o'clock**. What is the value of the **obtuse angle between the hands** of the clock? Write your answer in the space below.

_____ °

7. A film on TV lasts for **100 minutes**. It finishes at **0015**. At what time did the film start? Write your answer, as a **24 hour clock time**, in the space below.

8. Mark makes a sequence using this rule:

Take half of the previous number and then add one

Using this rule, write the 2 missing numbers in Mark's sequence below. Write your answers in the spaces provided.

_____, 386, 194, _____, 50, 26

Do not write in this column

The New Boy

The door swung inward. I stood and breathed
The new-school atmosphere.
The smell of polish and disinfectant,
And the flavour of my own fear.

I followed into the cloakroom; the walls
Rang to the shattering noise
Of boys who barged and boys who banged;
Boys and still more boys!

A boot flew by me. Its angry owner
Pursued with force and yell:
Somewhere a man snapped orders; somewhere
There clanged a warning bell.

And there I hung with my new schoolmates;
They pushing and shoving me; I
Unknown, unwanted, pinned to the wall;
On the verge of ready to cry.

Then, from the doorway, a boy called out:
'Hey you over there! You're new!
Don't just stand there propping the wall up!
I'll look after you!'

I turned; I timidly raised my eyes;
He stood and grinned meanwhile;
And my fear died, and my lips answered
Smile for his smile.

He showed me the basins, the rows of pegs;
He hung my cap at the end;
He led me away to my new classroom...
And now that boy's my friend.

John Walsh

Do not write
in this column

14. Look at the list of **four verbs** below. Write the **present tense** of each of the **verbs** in the spaces below. **Be careful with your spelling.** The first one has been done for you.

swung swing _____

hung _____

grinned _____

breathed _____

15. According to the poem, only **two** of the statements below are **correct**. Tick the two correct statements.

The boy is frightened because

he is new to the school and everything is unfamiliar.

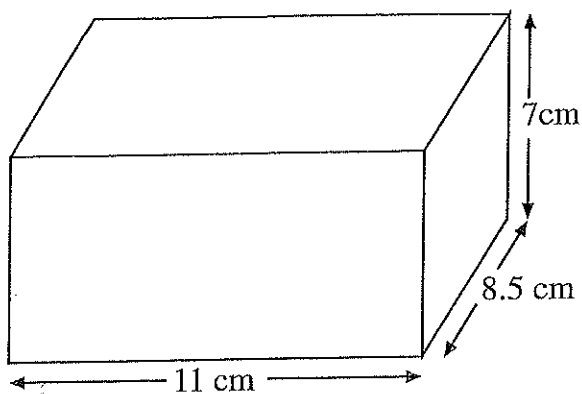
there is a lot of noise and confusion in the corridor.

he isn't good at anything related to mathematics.

there is a lot of noise and confusion in the cloakroom.

Do not write in this column

16. The cuboid below is 11 cm by 8.5 cm by 7 cm.



How many **edges** does the cuboid have? Write your answer in the space below.

17. What is the **area** of the **largest face** of the cuboid? Write your answer in the space below.

_____ cm²

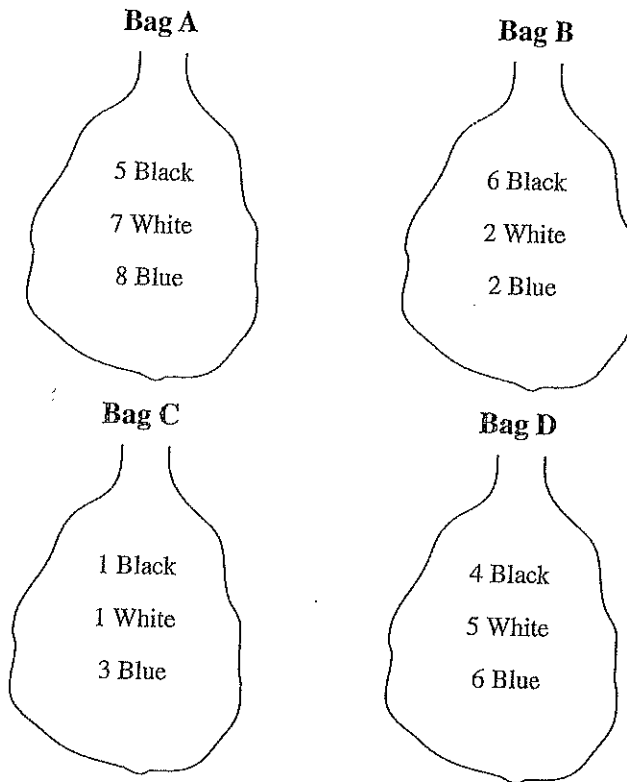
18. What is the **volume** of the cuboid? Write your answer in the space below.

_____ cm³

-
19. How many quarter-litre glasses can be filled from a container which holds 12.5 litres of fruit juice? Write your answer in the space below.

Do not write in this column

20. Four bags contain coloured counters. The bags are labelled A, B, C and D. The contents of each of the 4 bags are shown below.



Jenny is asked to take 1 counter from each bag without looking into the bag. From which bag is she most likely to take a blue counter? Write your answer A, B, C or D in the space below.

Bag _____

21. Look at the menu below.

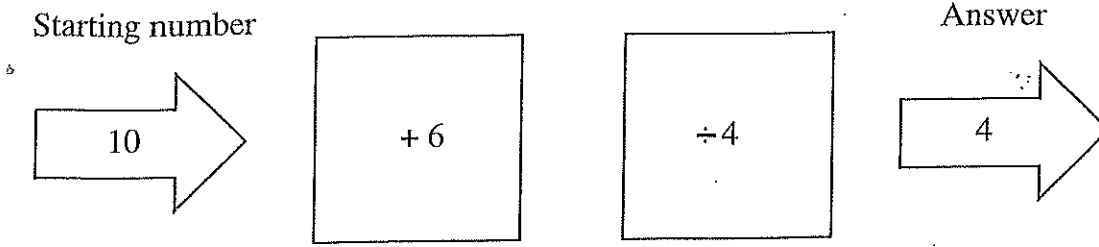
MENU	
Fish _____	£3.25
Chips _____	£1.80

Calculate the cost of 2 fish and 3 portions of chips. Write your answer in the space below.

£ _____

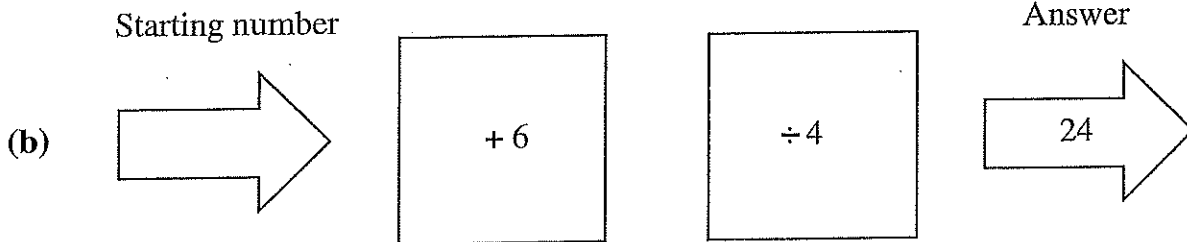
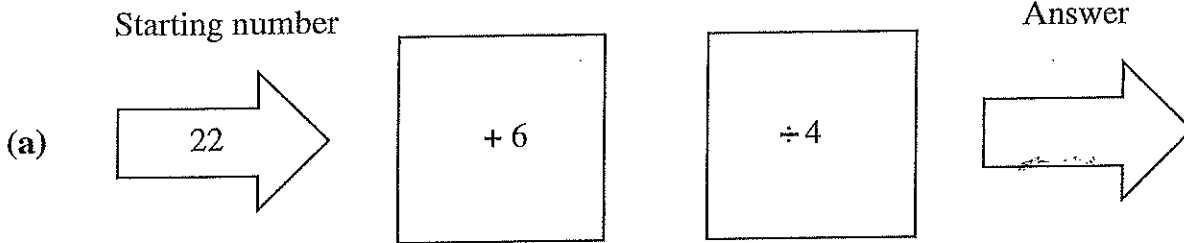
Do not write in this column

22. Look at the function machine below.



Do not write
in this column

Now look at the two function machines below. The **answer** is **missing** in function machine (a) and the **starting number** is **missing** in function machine (b). Complete the two function machines below by writing the **correct number in the blank arrow**.



23. Look at the number below

86.235

What is the **value** of the **3** in this number? Tick the correct answer.

- | | | | |
|------------|--------------------------|---------------|--------------------------|
| 3 hundreds | <input type="checkbox"/> | 3 tenths | <input type="checkbox"/> |
| 3 tens | <input type="checkbox"/> | 3 hundredths | <input type="checkbox"/> |
| 3 units | <input type="checkbox"/> | 3 thousandths | <input type="checkbox"/> |

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

Text Messaging

SMS language, also known as textspeak, is a term for the abbreviations and slang most commonly used in mobile phone text messaging, though its use is common on the Internet, including e-mail and instant messaging. (line 1)
This language for sending and receiving text messages is becoming more common. Many people still claim not to understand a word that's being written. (line 2)
Websites are now providing text translators for confused parents, as the older generation tries to keep up with today's technologically advanced youth. (line 3)
Many parents are worried about their children's poor literacy as a result of hours spent in front of a computer or communicating via text on mobiles. (line 4)
Scottish examinations were criticised recently for accepting answers given in text message language, provided they were correct and showed understanding. (line 5)
What is the world coming to. There must be an effort made, on the part of educators and parents alike, to encourage children in their use of standard English. (line 6)
(line 7)
(line 8)
(line 9)
(line 10)
(line 11)
(line 12)
(line 13)
(line 14)
(line 15)
(line 16)
(line 17)
(line 18)
(line 19)

24. Each line is numbered. 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 3

line 7

line 9

line 14

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 10

line 16

line 17

26. 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 1

line 3

line 6

line 9

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

line 5

line 8

line 12

line 13

Do not write in this column

28. A word has been used incorrectly in the passage. Tick the number of the line where the error was made.

line 9

line 11

line 14

line 15

Do not write
in this column

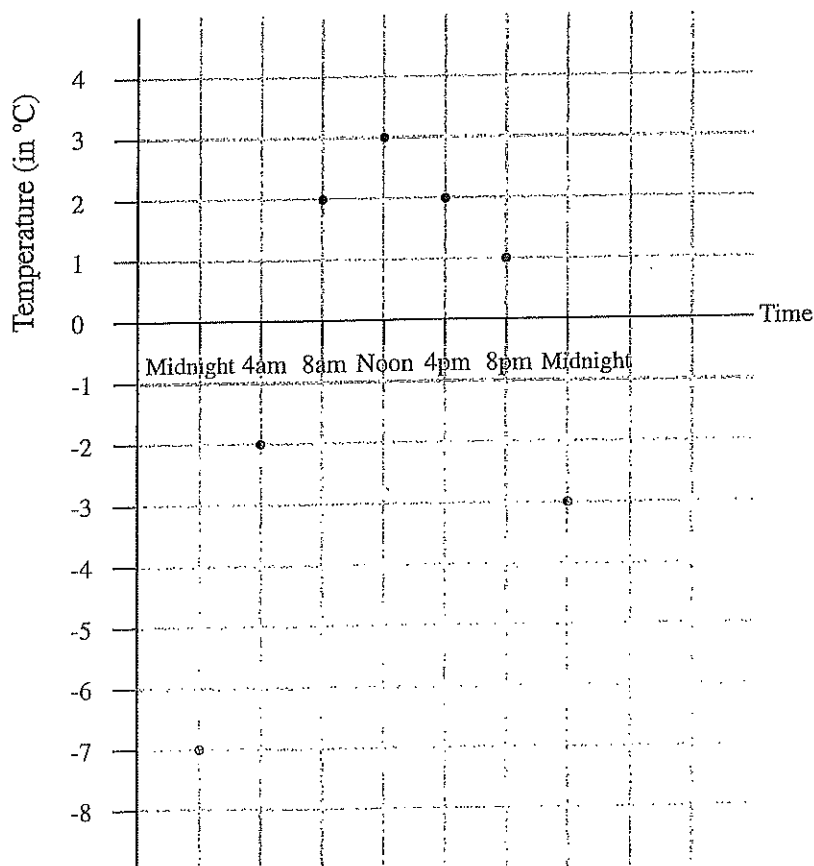
29. An athlete takes **9 minutes** to run **3000 metres** at a **steady speed**.
How long would she take to run **1 kilometre** at the **same steady speed**?
 Write your answer in the space below.

_____ minutes

30. Roseagh is a member of a gym. It costs her **£19.50** each **month**.
 How much in **total** does she pay to the gym in **1 year**? Write your
 answer in the space below.

£ _____

31. The temperature at an airport is recorded every 4 hours for a 24 hour
 period. The results are shown on the graph below.



What is the difference between the highest and lowest temperature
 recorded? Write your answer in the space below.

_____ °C

Do not write
in this column

32. William thinks of 2 **consecutive** numbers. When he **adds** the numbers he gets **19**. When he **multiplies** the numbers he gets **90**. What are the two numbers William thinks of? Write your answers in the spaces below.

33. Barra went on holiday last summer. He spent **35 minutes** getting to the airport from his **home**. He then spent **1 hour** at the airport before his flight. The flight lasted for **2¹/₂ hours**. Barra was at his holiday hotel **50 minutes** after landing at the airport. **How long** did it take him in **total** to get from his **home** to his **hotel**? Write your answer in the spaces below.

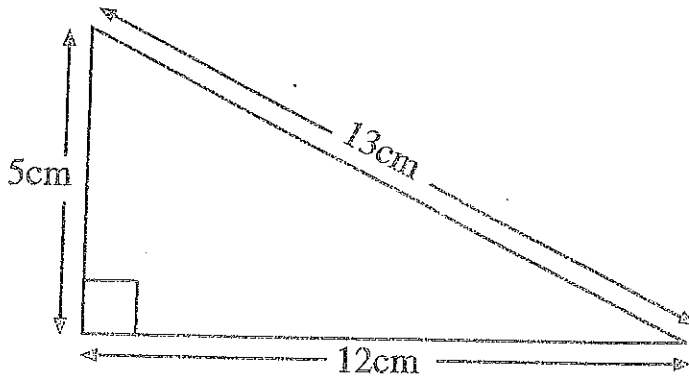
_____ hours _____ minutes

34. Use the information in the **first** statement below to **complete** the **other** statement. Write your answer in the space below.

$\frac{1}{5}$ of $c = 8$

50% of $c =$ _____

35. Look at the **right-angled** triangle below.



Find the perimeter of the triangle. Write your answer in the space below.

_____ cm

Find the area of the triangle. Write your answer in the space below.

_____ cm^2

Do not write in this column

36. Here are 5 fractions:

$\frac{5}{6}$ $\frac{7}{9}$ $\frac{29}{36}$ $\frac{7}{12}$ $\frac{13}{18}$

Which is the smallest fraction? Write your answer in the space below.

Do not write
in this column

2.00

Swift Things are Beautiful

Swift things are beautiful:

Swallows and deer,
 And lightning that falls,
 Bright-veined and clear,
 Rivers and meteors,
 Wind in the wheat,
 The strong-withered horse,
 The runner's sure feet.

And slow things are beautiful:

The closing of day,
 The pause of a wave
 That curves downward to spray,
 The ember that crumbles,
 The opening flower,
 And the ox that moves on
 In the quiet of power.

Elizabeth Coatsworth

37. Only **one** of the following sentences is true. Based on your reading of the poem, tick the true sentence.

The poet thinks that only swift things are beautiful.

The poet describes the opening of a flower as slow.

The poet writes about the joy of life in the city.

38. The word **ox** is used in verse two of the poem. The plural of **ox** is **oxen**. Write the plurals of the following words in the spaces below. The first one has been done for you. Be careful with your spelling.

horse horses

deer _____

monkey _____

sheep _____

Do not write
in this column

39. Look at the **four phrases** below. The phrases all appear in the poem. Tick the phrase **closest in meaning** to the words:

small pieces of wood or coal burning in a fire.

Lightning that falls

Bright-veined and clear

The ember that crumbles

In the quiet of power

40. The poem refers to **sure feet**. **Who or what** has sure feet? Tick the correct answer below.

the deer

the ox

the runner

the horse

41. Tick the statement below that best describes the poem.

Swift Things are Beautiful is

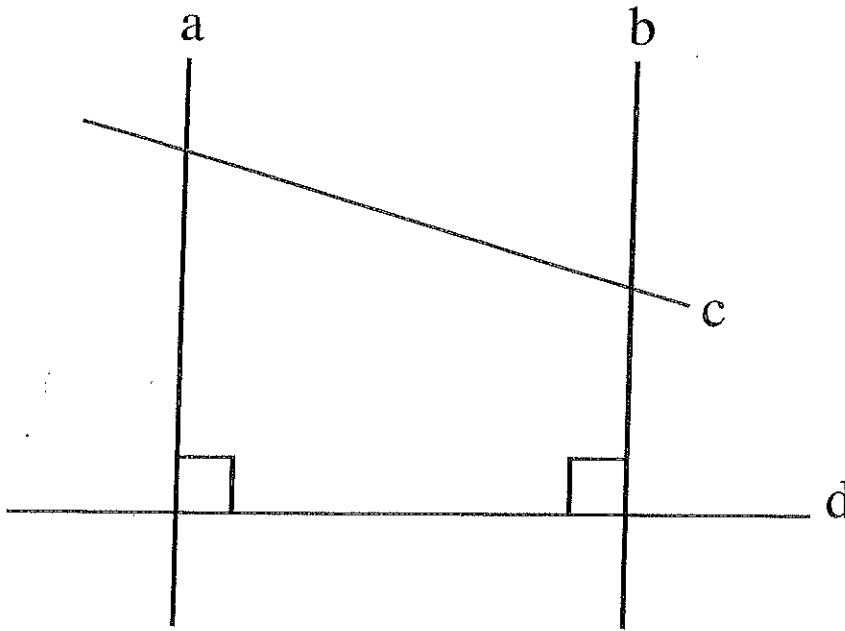
a poem about the beauty found in nature.

a poem about really beautiful animals.

a poem about the changing weather.

Do not write in this column

44. The figure below shows 4 lines a, b, c, and d.



Tick each of the statements below true or false.

	True	False
Line a is parallel to line b	<input type="checkbox"/>	<input type="checkbox"/>
Line c is parallel to line d	<input type="checkbox"/>	<input type="checkbox"/>
Line a is perpendicular to line c	<input type="checkbox"/>	<input type="checkbox"/>
Line a is perpendicular to line d	<input type="checkbox"/>	<input type="checkbox"/>

45. A square number can be added to a prime number to make 39.
There are two ways of doing this. One of the ways is given below:

$$36 + 3 = 39$$

What other square number can be added to a prime number to give 39?
Write your answer in the boxes below.

$$\boxed{} + \boxed{} = 39$$

Do not write
in this column

49. Look at the 4 numbers below.

0.11977 1.1977 11.977 119.77

The answer to the calculation below is one of these 4 numbers.
Write the correct number in the space below.

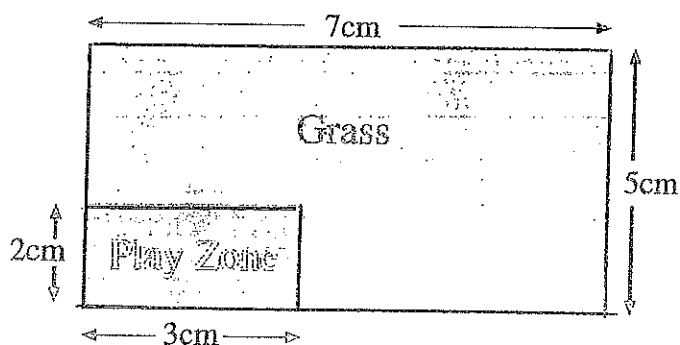
$1197.7 \div 100 =$ _____

50. A piece of glass is one millimetre thick.

Look at the 4 statements below. One of these statements is correct.
Tick the correct statement.

- The thickness of the glass is one tenth of a metre
- The thickness of the glass is one hundredth of a metre
- The thickness of the glass is one tenth of a centimetre
- The thickness of the glass is one hundredth of a centimetre

51. Look at the plan of a garden below. In one corner of the garden is a children's "play zone". The garden and the play zone are both rectangular. The ground in the play zone is made of soft plastic material. The part of the garden outside the play zone is covered with grass.



On the plan: 1 centimetre represents 3 metres.

a) Find the area of the play zone on the plan. Write your answer in the space below.

_____ cm^2

b) Find the actual perimeter of the part of the garden which is covered with grass. Write your answer in the space below.

_____ metres

Do not write in this column

The Fox in Winter

"Hey!" Dave was calling her from the beach below, and she climbed down to him. Beyond them was a stretch of massive boulders, fallen in times past from the cliff face, and they clambered over them, leaping from rock to rock. The waves surged forward, rushing between the rocks and splashing over the top. The force of the water made Fran feel dizzy, if she looked at it.

They leaped down to a small beach. The tide had just cleared it, and there was not a mark on the smooth stretch of sand. They ran across it, and turned to look back at their two sets of footprints. No holiday-makers ever found their way here.

Before them stood the arched mouth of the cave, as big as a chapel. The tide had built up the sand across the entrance, trapping a large pool; sunlight reflected from the surface struck the roof of the cave, so that a shimmering light played over the stone.

They waded through. As they broke the surface, the light on the roof shattered; it danced frantically until they reached the sand beyond, and then gradually it settled down. A few drips of water fell from above, and the chill of the cavern struck them.

The rocks rising out of the sandy floor, with smaller pools around them, were covered with shiny seaweed. Mr Trelor once said that this was laver; they used to boil it and eat it as a vegetable. She scraped a sample into a plastic bag.

John Branfield

52. Who is exploring the cave? Look at the answers below and tick the best answer.

Fran and Mr Trelor

Dave and Mr Trelor

Fran and Dave

Fran, Dave and Mr Trelor

Do not write
in this column

53. Look at **paragraph one**. Find the phrase of **three or four words** which tells us that the boulders **have been there for a long time**. Write the phrase in the space below.

54. Only **one** of the **four** sentences below is true. Based on your reading of the passage, tick the true sentence.

The beach is a busy tourist spot.

It is a bright and sunny day.

The entrance to the cave is small.

The sea is calm and still.

55. A **simile** is a comparison of one thing with another using the words 'as' or 'like'. For example: The children were playful like kittens. There is a simile in one sentence of the passage. Write the sentence containing the simile in the space below.

56. Find the word closest in meaning to each of the words below. The three words you're searching for are in paragraph one of the passage. Write your answers in the spaces below.

big _____

jumping _____

giddy _____

Do not write
in this column

57. Look at **paragraph four** of the passage. Now look at the **four sentences** below. **One** of the sentences is **true**. Tick the true sentence.

A light bulb on the roof of the cave shatters.

Dave and Fran begin to dance in the cave.

Dave and Fran wade through a pool of light.

The pool of water reflects light onto the roof.

58. The word **frantically** is used in the passage. This is an **adverb**. Write the **adverb** for each of the following words below in the space provided. **Be careful with your spelling**. The first one has been done for you.

happy happily

slow _____

funny _____

Do not write
in this column