## ENTRANCE AND SCHOLARSHIP SAMPLE PAPERS

Sample Paper

# FOREST SCHOOL <br> ENTRANCE EXAMINATION MATHEMATICS 

## Calculators are NOT allowed <br> You are advised to show your working

Time: One hour

NAME
CANDIDATE NUMBER $\qquad$

1 Work out $694+888$

ANSWER

2 Work out 1234-566

ANSWER

3 Work out $764 \times 7$

ANSWER

4 Work out $20504 \div 8$

ANSWER
$5 \quad$ In $1970 £ 1$ was worth the same as $\$ 2.50$.
How many pounds was $\$ 1000$ worth?

ANSWER
$6 \quad$ Calculators normally cost $£ 6$ and protractors normally cost 30p.
In a sale, calculators have been reduced by a quarter and protractors are half price.

David bought 8 calculators and 20 protractors.
How much did he have to pay?

ANSWER

7 Jordan eats $\frac{1}{4}$ of a pizza and Anna eats $\frac{1}{3}$ of what is left.
Rohit, Guhesh and Matilda share equally the remainder.
What fraction of the pizza did Matilda eat?

ANSWER

8 Mayank thinks of a number. He doubles it and then adds 4 and gets the answer 40.

What was Mayank's number?

ANSWER
$9 \quad$ Write in words the number 4040440

ANSWER

10 What number is halfway between -3 and 8 ?

## ANSWER

11 A programme starts at 9:15pm and ends at 11:06pm. How many minutes did it last?

ANSWER $\qquad$ minutes

12 Grace plants a row of daffodils.
There is a gap of 1.1 metres between each daffodil, and the row begins and ends with a daffodil.

She has 8 daffodils.
How long is the row of daffodils when she has finished?
130.126 is halfway between two numbers.

One of the numbers is 0.11 .
What is the other number?

ANSWER

14 Khatijah throws two dice and adds together the scores.
How many different ways can she score 8 ?
Show each different way clearly.

15 Hiring a Sports Hall costs a $£ 30$ booking fee and then $£ 10$ per hour.
Chris hires it and pays $£ 120$.
How many hours did Chris hire the hall for?

ANSWER

16 Jerry the bearded dragon eats 12 locusts for breakfast at the start of every day.

His owner buys 100 locusts one afternoon for Jerry to eat.
How many locusts does Jerry get on the day these locusts run out?

ANSWER. $\qquad$

17 What is the smallest number that 3,4 , and 10 all go into?

ANSWER

18 Draw the shape whose sides are twice as big as the one shown in the space in the grid below it.

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19 Prasha is swimming lengths at her local swimming pool.
She takes 24 seconds to swim a length doing front crawl.
She takes 60 seconds to swim a length doing breaststroke.
She swims 3 lengths of each (so a total of 6 lengths).
The last length takes an extra 6 seconds as she gets tired.
How long did she take to swim all 6 lengths? Give your answer in minutes and seconds.

Ermintrude the female cat flea can lay 50 eggs a day.
These become adults in 30 days.
How many new adult fleas will there be in 40 days?

ANSWER

21 Complete the table showing whether pupils walk to school or not and answer the questions below.

|  | Walk | Don't walk | Total |
| :---: | :---: | :---: | :---: |
| Girls | 6 |  | 11 |
| Boys |  | 8 |  |
| Total |  |  | 23 |

(i) What fraction of the pupils are boys who walk to school?
(ii) What fraction of the girls don't walk to school?

2236 is a square number because it can be written $6 \times 6$.
Similarly, $64=8 \times 8$ is a square number.
1000 is a cube number because it can be written $10 \times 10 \times 10$
Similarly, $343=7 \times 7 \times 7$ is a cube number.
The French mathematician Pierre de Fermat claimed correctly that there is only one square number that is 2 less than a cube number.

It is less than 50.
What is it?

ANSWER.

23 A game is played on a board with spaces numbered 1, 2, 3, 4, 5, 6, 7.... and so on.

In the game players throw a dice numbered 1 to 6 and move forward the number of spaces indicated unless they throw a 6.

If they throw a 6 they do not move but have to go back the number on the next throw.

What space would you end up on after these 8 throws: $5,5,3,6,2,6,1,4$ ?

24 On the planet Zog the wibbles and the wobbles are having their annual conference.
A wibble has 6 arms and a wobble has 5 arms.
There are 11 wibbles and a total of 81 arms at the conference.
How many wobbles are there?

## ANSWER

25 In this addition each letter represents a different digit.
List all the possible digits that A could be.
$N A+R A+T A=W X A$

ANSWER

In this multiplication each letter represents a different digit.
List all the possible digits that B could NOT be.
$\mathrm{MB} \times \mathrm{NB}=\mathrm{GHB}$

26 A number is a multiple of 11 if 11 goes into it. 33 and 121 are both multiples of 11 .

Ajay says that a number is a multiple of 11 if the difference of alternate sums of digits in the number is a multiple of 11 .

So, 27390628 is a multiple of 11 because
$2+3+0+2=8$
$7+9+6+8=30$
and $30-8=22$ which is a multiple of 11 .
(a) Is 978261 a multiple of 11 ? Show your working clearly.

ANSWER
(b) Find one of the ways to fill in the gaps so that this number is a multiple of 11.


27 What is 6 metres per second in kilometres per hour?

28 Safiya draws a rectangle.
She then adds 10 cm to each side.
What has the perimeter increased by?

## ANSWER

cm

29 Kasey takes 24 minutes to cycle from A to B
Shayban cycles at three quarters of Kasey's speed.
How long does it take Shayban to cycle from $A$ to $B$ ?
$\qquad$

30 How many ways are there of colouring in three squares in this grid so that exactly one coloured square appears in each row and each column? Show clearly how you get your answer.


31 A number is deficient if its factors, not including itself, add up to a number less than the original number.

If they add up to more, it is abundant.
So 8 is deficient because its factors add up to $1+2+4=7$ which is less than 8.

Are the following numbers deficient or abundant? Explain clearly your reasoning.
(a) 10

ANSWER
BECAUSE
$\qquad$
$\qquad$
(b) 12

ANSWER
BECAUSE
$\qquad$

Victor says that all prime numbers are deficient. Do you agree?
Explain your reasoning carefully

ANSWER.
BECAUSE

32 Katie, Molly and Olivia are three friends.
One of them always tells the truth.
One of them always lies.
The other one sometimes tells the truth and sometimes lies.
Katie says: I always lie.
Olivia says: Katie sometimes lies and sometimes tells the truth.
Use this information to determine which person is which.

Always tells the truth
Always lies.
Sometimes tells the truth and sometimes lies

33 Alan and Bob can paint a room in 4 hours.
Bob would take 6 hours on his own.
How long would Alan take on his own?

[^0] Reflect these shapes in the mirror lines.

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35 A cube has six faces.
Theo builds a bigger cube out of 27 little cubes.
He paints the outside of the big cube and lets the paint dry.
He then breaks it up into the original 27 cubes.
What is the total number of unpainted faces on the little cubes? Show clearly how you get your answer.

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# ENGLISH ENTRANCE/SCHOLARSHIP EXAMINATION 

## SAMPLE PAPER

Section A: Reading

## PASSAGE

Reading time: $\mathbf{1 0}$ minutes

## Instructions to Candidates

- You have $\mathbf{1 0}$ minutes to read the passage.
- You may not start answering the questions during this time.
- You may write notes on the passage if you want to.


## Section A: Reading

The pace of desert life is almost exactly the opposite of life I'm used to back home. Because of the ferocity of the climate, even the most simple activities must be taken slowly. There is no need to hurry and no benefit in doing so.

For the cameleers, the day follows a timeless, preordained pattern. Prayer, then breakfast cooked over a fire of sticks and branches, then the thick woollen blankets, under which they sleep at night (they don't have tents), are rolled up, secured with twine and laid beside each camel. The camels are brought to their knees and loaded up. Guide ropes are reinserted in mouths stained yellowy-green from cud-chewing, and they are brought to their feet. This provokes a tumult of braying and grunting. I wish I knew what they were saying, for it sounds important to them. Is it a passionate protest or is it merely an assertion of team spirit at the start of a new day? Is it 'how many more times do I have to tell you, I'm not a beast of burden, right', or is it 'Good morning everyone. Another scorcher by the looks of things'?

Ekawik doesn't speak to me at all. In fact, he doesn't seem the slightest bit interest in making friends with me, despite my patting of his flanks and complimentary remarks about the two silver good luck charms hanging from a chain around his neck.

He does, however, honk savagely when asked to carry me. This doesn't help, as l've never felt very comfortable on the back of an animal. Once perched on Ekawik's hump, I feel about as steady as I would on a surfboard. I've also been provided with a lethal, ceremonial saddle with high, spiky prongs and pommels back and front. I may look like some visiting king when I'm up there, but when it comes to dismounting, I find it impossible to get my leg over, and I have to be dragged from the saddle like someone being pulled from a car wreck. Much giggling from the cameleers.

The rhythm of the journey is set by the camels. Normally, they would be on the move at four in the morning, walking for fourteen or fifteen hours a day with two breaks, at midday and late afternoon. Omar tells me that when he's on the road he only has three or four hours' sleep at night.

Ekawik and his friend are happiest when performing something steady, simple and repetitive, like walking or chewing the cud. They are superbly adapted to this climate and terrain. Long legs raise them clear of the hot sand, a layer of fat on their backs protects them from the blazing sun. Heat escapes from their big, reassuringly rounded flanks, so they appear not to sweat, and even in this frightening heat they can go for days without any water at all.

Izambar Mohammed, one of the nine-strong team of cameleers, is the chanteur, the one who sings and chants and makes up songs to pass the time45 as we go. He warns me about staying too close to the camels, especially their
rear ends. Using fluent mime, he points out the ones that are the worst kickers. Somehow it doesn't surprise me that they include Ekawik.

## 11+ ENGLISH ENTRANCE/SCHOLARSHIP EXAMINATION

## SAMPLE PAPER

Section A: Reading
Section B: Writing
ANSWER BOOKLET
1 hour

| Name |  |
| :--- | :--- |
| Candidate <br> number |  |

## Instructions to Candidates

- Write your full name and candidate number clearly on the front of this booklet
- You are advised to spend $\mathbf{3 5}$ minutes on Section $A$ and $\mathbf{2 5}$ minutes on Section B
- You will have an additional 10 minutes to read the passage BEFORE the 1 hour starts
- You should answer all the questions

Section A - Mark out of 25: $\qquad$
Section B - Mark out of 25: $\qquad$
Total: $\qquad$
Marker: $\qquad$

## Section A - Reading (25 marks)

## Re-read the first paragraph of the passage (lines 1-4).

1a. What is the pace of life like in the desert? (1 mark)
$\qquad$
$\qquad$ 1a. $\qquad$

1b. What is the pace of life like 'back home'? (1 mark)
$\qquad$
$\qquad$ 1b. $\qquad$
2. The passage refers to 'the ferocity of the climate'. What does the word ferocity tell the reader about the climate? (1 mark)
$\qquad$
$\qquad$

Re-read the second paragraph of the passage (lines 6-17)
3. What are the cameleers? (1 mark)
$\qquad$
$\qquad$
4. The passage says that 'the day follows a timeless, preordained pattern'. What does the word preordained mean in this sentence? (1 mark)
$\qquad$
$\qquad$
5. Write down two activities that the cameleers do before the camels are loaded up (2 marks)

Activity one:

Activity two:
6. Find and write down the words or phrase that describe the noise that the camels make when they stand up. (1 mark)
$\qquad$
$\qquad$
7. How does the reader know that the writer is interested in what the camels think? (1 mark)
$\qquad$
$\qquad$
$\qquad$

## Re-read lines 19-31.

8. Who is Ekawik? (1 mark)
$\qquad$
9. Circle the word which does not describe Ekawik's attitude? (1 mark)

Hostile
Friendly
Uncooperative
9. $\qquad$
Awkward
10. Write down one thing that the writer does to try and make friends with the camel. (1 mark)
$\qquad$
$\qquad$
11. Write down the simile which tells the reader that the narrative feels wobbly when sitting on the camel. (1 mark)
$\qquad$
$\qquad$
12. How does the reader know that the saddle is not comfortable? (1 mark)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
13. When the writer finds it hard to get off the camels, the writer says, 'Much giggling from the cameleers'. What does this phrase tell the reader about the attitude of the cameleers to the writer? (1 mark)
$\qquad$
$\qquad$
$\qquad$

## Re-read lines 33-51

14. Using information from the text, tick one box in each row to show whether each statement is true or false. (3 marks)

|  | True | False |
| :--- | :---: | :---: |
| The camels enjoy variety |  |  |
| The camels' bodies are designed to cope well with the <br> heat |  |  |
| The camels have to have water every few hours in <br> order to survive |  |  |

14. $\qquad$
15. What job does Izambar Mohammed have? (1 mark)
$\qquad$
$\qquad$
16. Why do you think Izambar uses 'fluent mime' to communicate with the writer? (1 mark)
$\qquad$
$\qquad$
17. Why do you think that the writer is 'not surprised' that Ekawik is one of the worst kickers? (1 mark)
$\qquad$
$\qquad$
$\qquad$
$\qquad$

The following questions are about the whole passage.
18. Which paragraph tells the reader about the routine of the camels' journey? (1 mark) $\qquad$
Lines $\qquad$ to $\qquad$
19. How would you describe the attitude of the writer towards the experience of riding on camels in the desert? You should explain your answer using quotations from the text. (3 marks)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
19. $\qquad$

## Section B - Writing (25 marks)

You must answer the question set. You should not write out an answer from memory. Answers which are written from memory do not get very high marks.

Some people believe that it is wrong to use animals for our entertainment (for example, riding camels when on holiday, seeing animals in a circus or in a zoo). Other people think that, provided the animals are treated well, then it is acceptable to use animals for entertainment.

Write the text for a speech you are going to make to an audience of Year 6 pupils and their teachers in which you argue either for or against animals being used for entertainment.
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[^0]:    ANSWER

