



FOREST SCHOOL

11+

**ENTRANCE
AND
SCHOLARSHIP**

Sample Paper 3

FOREST SCHOOL
ENTRANCE EXAMINATION
MATHEMATICS

Calculators are **NOT** allowed

You are advised to show your working

Time: One hour

NAME.....

CANDIDATE NUMBER.....

1 Work out $694 + 888$

ANSWER.....

2 Work out $1234 - 566$

ANSWER.....

3 Work out 764×7

ANSWER.....

4 Work out $20504 \div 8$

ANSWER.....

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

ANSWER.....

6 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 she 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?

SAMPLE

ANSWER.....

9 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.....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?

ANSWER.....m

13 0.126 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.

ANSWER.....

- 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.

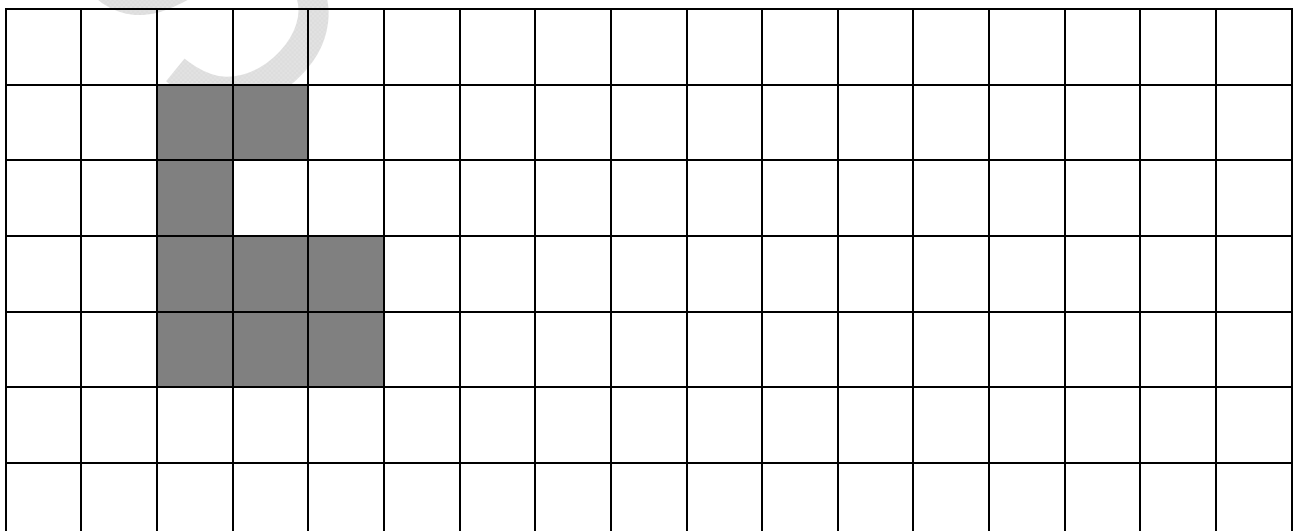
How many locusts does Jerry get on the day these locusts run out?

ANSWER.....

- 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.



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.

SAMPLE

ANSWER.....mins.....secs

20 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?.....
-

22 36 is a square number because it can be written 6×6 .

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?

ANSWER.....

- 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.

$$NA + RA + TA = WXA$$

ANSWER.....

In this multiplication each letter represents a different digit.

List all the possible digits that B could **NOT** be.

$$MB \times NB = GHB$$

ANSWER.....

- 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, 27390638 is a multiple of 11 because

$$2 + 3 + 0 + 3 = 8$$

$$7 + 9 + 6 + 8 = 30$$

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.

7 _ 5 6 _ 0

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

ANSWER.....km/h

28 Safiya draws a rectangle.

She then adds 10cm to each side.

What has the perimeter increased by?

SAMPLE

ANSWER.....cm

29 Kasey takes 24 minutes to cycle from A to B

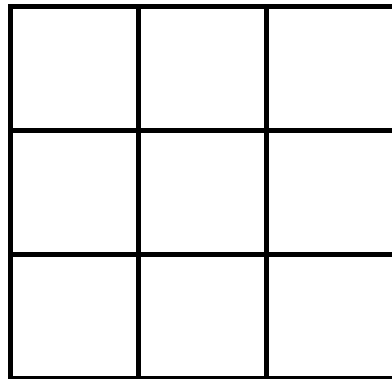
Shayban cycles at three quarters of Kasey's speed.

How long does it take Shayban to cycle from A to B?

SAMPLE

ANSWER

- 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.



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.....

.....
.....

(b) 12

ANSWER.....BECAUSE.....

.....

.....

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.....

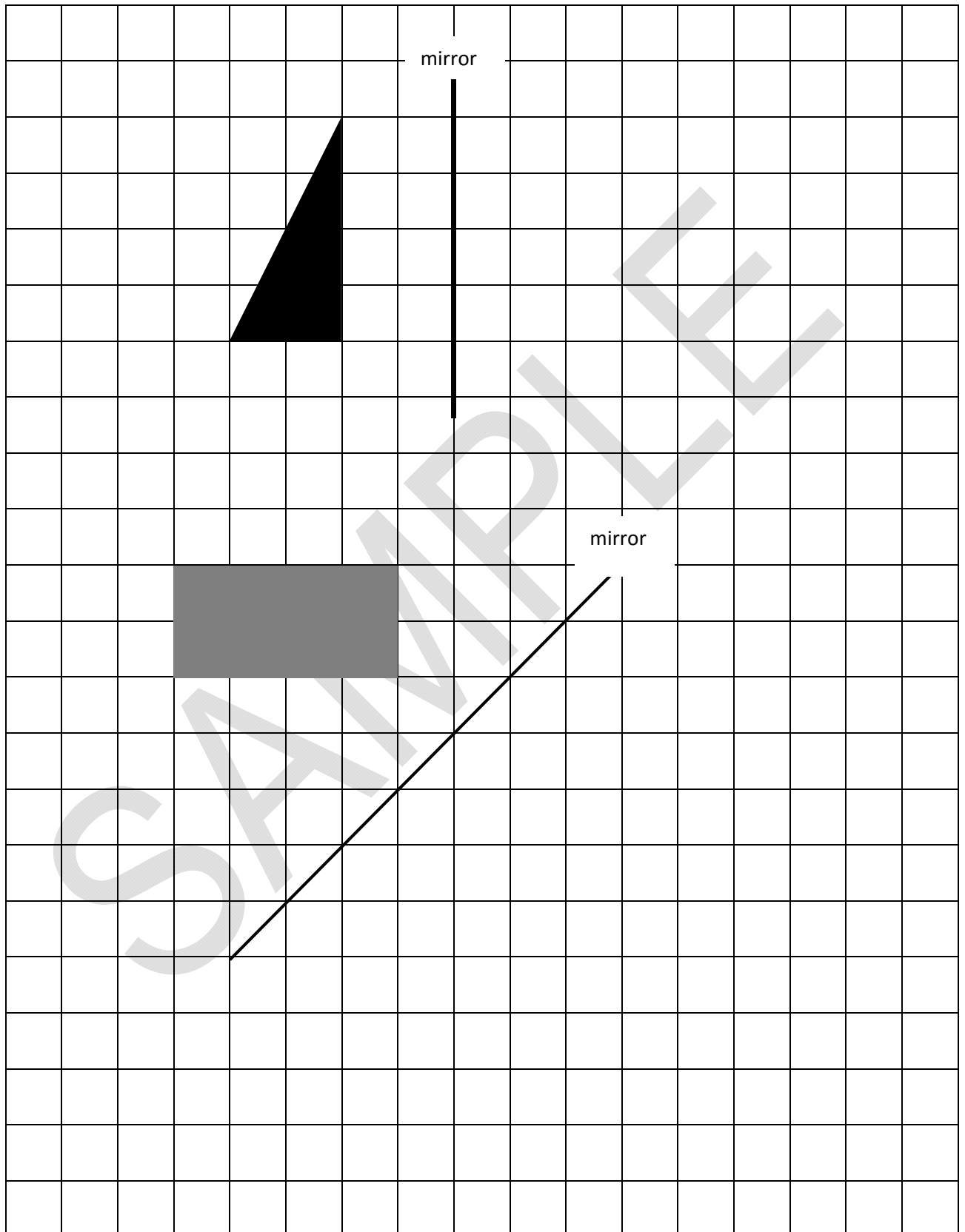
Always lies.....

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?

ANSWER.....

34 Reflect these shapes in the mirror lines.



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.

ANSWER.....

YOU HAVE NOW COMPLETED THE EXAMINATION.
IF YOU HAVE TIME GO BACK AND CHECK YOUR ANSWERS.

ENGLISH ENTRANCE/SCHOLARSHIP EXAMINATION

Section A: Reading

PASSAGE

Reading time: 10 minutes

Instructions to Candidates

- You have **10 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.
- Once the reading time is over, you have **35 minutes** to complete the questions in the spaces provided.

Peri and his brother Helgis are outside their village. Peri is trying to train a difficult falcon (a large bird of prey) to be an obedient hunter.

"I tell you, Peri, my bird is sickening for something."

Helgis tugged the back of his brother's sleeveless leather jacket to get his attention, his small dark face and dark eyes bleak with anxiety. "She's off her food and her feathers look dull. You've always told me that's a bad sign."

5

Peri kept his eye on the distant falcon, flying over the crag. The ground under his boots squelched as he readied himself to swing the lure, but he paid no attention to the discomfort of wet feet.

"I'll take a look at her when I've finished here," he promised, his voice as calm and melodious as always. There was something about him – his air of being utterly centred – that appealed to all creatures, especially winged ones. Even Helgis's anxiety eased listening to his brother's words. "Now stand back: I need room."

10

"Please don't take too long. I'm really worried about her."

"I know – and it's natural. Goldie's your first bird. We all worry too much about our first."

15

Helgis sighed, realising his brother was not going to come with him until he was good and ready. He often complained that Peri was as immovable as the peak of Mount Bander; even now, as he stood ankle-deep in the mud, his shoulder-skimming black hair tied back with a leather thong, his long limbs relaxed, there was no budging him until he was finished. Yet Peri had a sure hand with the birds that kept even the tricky ones, like the falcon he was now flying, obedient to his will. Helgis wished he had even a fraction of his patience, or his skill with the falcons.

20

Peri caught his brother's envious look and smiled inwardly. He knew his little brother thought he was always the capable one. Helgis had announced only the night before that he wanted to be exactly like Peri when he grew up, much to the amusement of the rest of the family. They all anticipated that Helgis's hot temper might not allow it. But Peri loved his little brother dearly and hoped he could live up to the high opinion Helgis held of him.

25

"You'd best move to a safe distance," Peri said gently.

"I'll get out of your way then." Helgis jumped from tussock to tussock to reach the shelter of a rock. "I'm clear."

30

Peri slowly began to spin the lure¹ above his head, the piece of rabbit meat tied to the end humming in the wind to tempt the falcon on the wing. He put aside the problem of Helgis's sparrowhawk for later attention, concentrating on the task at hand. Would the bird respond? The crotchety falcon had been almost impossible to train so as a last resort had been given to him to straighten out. Peri guessed a previous handler had mistreated the creature or failed to be consistent with his rewards; it had developed an unpredictable and malevolent streak, as likely to dive for the trainer as the meat lure.

35

40

“Come on, beauty,” he urged the hunter. He was the bird’s last chance: 45
if it didn’t respond to him, then it would be destroyed, a thought which made
Peri want to rage at the unfairness of life.

With a contemptuous loop over the crag, the peregrine flaunted its
superb flying skills. It skimmed along the ridge, teasingly suggesting that it
planned to continue on until it was out of sight. Then, finally, as if sensing 50
that even Peri’s patience was running out, it turned and rocketed towards
the lure, as fast as an arrow from a longbow. It made a perfect grab for the
meat, landing it on the grass.

Now the test: could the handler separate it from the lure? If the falcon
ate the kill, it would never do as a hunter. It had to be trained to let go of 55
what it had captured. Peri moved closer, slipping off his jacket, then threw
it over the lure, making it seem to the falcon that it had ‘disappeared’. He
then cast a small chunk of meat within easy reach. Would the falcon let go
of the prize it still gripped but could not see, in favour of the reward that his
trainer had offered? 60

The falcon raised its ebony eyes, its expression one of resentment, but
then hopped off the lure to pluck the titbit from the grass. Next Peri held out
his gauntleted² hand with another larger piece of meat. Rogue gave him a
cold look but flapped up to snatch this reward too, allowing Peri to secure
the bird in place by the jesses attached to its legs. Back under the
falconer’s control, Rogue was too busy eating his treat to worry that Peri
was putting away the much larger feast on the end of the lure.

“Phew!” exclaimed Helgis, jumping out from behind his refuge. “I never
thought I’d see Rogue follow orders.”

Usually unruffled by anything that happened on the training grounds,
Peri could not disguise his delight. “I didn’t think I’d live to see it
either. He’s been the most difficult bird I’ve ever had to train.”

1: *lure* – this is a piece of meat attached to the end of a long rope used to train the
falcon to hunt

2: *gauntleted* – Peri is wearing a thick leather glove to protect his arm from the
falcon’s talons

ENGLISH ENTRANCE/SCHOLARSHIP EXAMINATION

Section A: Reading

ANSWER BOOKLET

35 minutes

Name	
Candidate number	

Instructions to Candidates

- Write your name and candidate number clearly on the front of this booklet.
- Once the reading time is over, you have **35 minutes** to complete the questions in the spaces provided.
- You should answer all the questions in this section.

Mark out of 30: _____

Marker: _____

1. **Reread lines 1-4.** Write down two clues that Helgis is worried. **(2 marks)**

(1)

(2)

2. **Reread lines 5-7.**

a) What does "The ground under his boots squelched" mean? **(1 mark)**

b) Write down a quotation that shows that Peri is completely focused on his falcon. **(1 mark)**

3. **Reread lines 8-21.**

a) What promise does Peri make in this extract? **(1 mark)**

b) Write down the simile in this extract. **(1 mark)**

c) What does this simile tell us about Peri's character? **(1 mark)**

4. Explain how the brothers are different from each other. You should use quotations from the passage in your answer. **(4 marks)**

5. **Reread this sentence from lines 33-4:** “The crotchety falcon had been almost impossible to train so as a last resort had been given to him to straighten out.”

a) What does “to straighten out” mean **in this sentence**? (1 mark)

b) In your own words, explain what “as a last resort” means **in this sentence**. **(1 mark)**

c) What two things does Peri suspect may have happened to the falcon before it came to him? **(2 marks)**

(1)

(2)

6. In lines 35-6, the author writes that the falcon “had developed an unpredictable and malevolent streak”.

a) What does she mean by this? **(2 marks)**

b) Why did Peri agree to take on the training of this difficult bird? Give two reasons. **(2 marks)**

7. Reread lines 40-44. How does the author describe the falcon? You should use quotations from the passage in your answer. **(3 marks)**

EXAMPLE

8. Reread lines 45-56. What does Peri need to see that the bird is able to do in these paragraphs, and why? **(2 marks)**

9. How does the author make Peri an interesting character in this passage? You should use quotations from the passage in your answer. **(4 marks)**

Blank lined area for writing.

10. How do Helgis and Peri feel at the end of the passage? **(2 marks)**

Blank lined area for writing.

ENGLISH ENTRANCE/SCHOLARSHIP EXAMINATION

Section B: Writing

30 minutes

Name	
Candidate number	

Instructions to Candidates

- Write your name and candidate number clearly on the front of this booklet.
- Choose **ONE** question and write your response in the space provided.
- You have **30 minutes** for this section.

Mark out of 30: ____

Marker: ____

Section B – Writing

Marks Available: 30

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

CHOOSE ONE OF THE FOLLOWING QUESTIONS:

Either

- 1) You are walking along the street, when you see a dog with no collar. You go up to it, and it greets you with enthusiasm. Write the story of what happens next.

Or

- 2) A new school is being set up in your area and the headteacher has asked for help to decide what should be taught there. Write a letter to the headteacher, explaining what you think are the most important things for children to learn at school and why.

Space To Plan

SAMPLE

