## Mathematics tests

KEY STAGE

## Test A

## Calculator not allowed

| First name |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Middle name |  |  |  |  |
| Last name |  |  |  |  |
| Date of birth | Day |  | Month |  |

For marker's use only

| Page | Marks |
| :---: | :---: |
| 5 |  |
| 7 |  |
| 9 |  |
| 11 |  |
| 13 |  |
| 15 |  |
| 17 |  |
| 19 |  |
| 21 |  |
| 23 |  |
| Total |  |

These three children appear in some of the questions in this test.


## Instructions

You may not use a calculator to answer any questions in this test.

Work as quickly and as carefully as you can.
You have 45 minutes for this test.

If you cannot do one of the questions, go on to the next one.
You can come back to it later, if you have time.

If you finish before the end, go back and check your work.

## Follow the instructions for each question carefully.

This shows where you need to put the answer.
If you need to do working out, you can use any space on a page.

## Some questions have an answer box like this:



For these questions you may get a mark for showing your working.

The numbers in the two triangles add up to the number in the square.


Using the same rule, write in the missing numbers.

1a
1 mark


1b

mirror line
$\qquad$

The number $\mathbf{2 0}$ goes in two of the squares of this multiplication grid.

Tick $(\checkmark)$ the two squares where 20 goes.

| $\times$ | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |

On each net draw one more dot so that each cube will have dots on opposite faces.

$\qquad$

This diagram shows how nine people travel to work and how far away they live.


How many people live more than 4 km from work?


1 mark
How far from work does person $\mathbf{G}$ live?


Write the letter of the person who lives 2 km from work and cycles.


7 Megan and Chen are washing cars.

Megan gets $£ 39$ and Chen gets $£ 55$

They share what they get equally between them.

How much does each of them get?

$\qquad$

8 The table shows the cost of a new football kit.

| Item | Cost |
| :--- | :---: |
| Shirt | $£ 8.75$ |
| Shorts (1 pair) | $£ 5.95$ |
| Socks (1 pair) | $£ 4.15$ |



Altogether, how much does the complete football kit cost?


9 Here are some sentences about an amount of money.

Mark each sentence with a tick $(\checkmark)$ if it is correct.
Put a cross $(\mathbf{x})$ if it is not correct.

One has been done for you.
$£ 1.03$ can be made with exactly 1 coin.

$£ 1.03$ can be made with exactly 2 coins. $\square$
$£ 1.03$ can be made with exactly 3 coins. $\square$
$£ 1.03$ can be made with exactly 4 coins.


10 Here are four designs made from two sizes of circles.


Write the letters of all the designs that have line symmetry.
1 $\qquad$
$\qquad$
$\qquad$

| Number | Rounded to the <br> nearest whole number |
| :---: | :---: |
| 5.05 |  |
| 5.55 |  |
| 4.45 |  |
| 4.54 |  |


$150 \div 10=\square$

13 Alfie places three cubes on a coordinate grid. The base of his shape is a rectangle.


Complete this sentence:
The four vertices of the rectangle are

$\qquad$

14 Tick $(\checkmark)$ each shape that is exactly $\frac{1}{4}$ shaded.


15 Four children are in a race.

Chen is 2 metres ahead of Alfie.

Nina is 5 metres behind Megan.

Alfie is 3 metres behind Megan.

Write the names of the runners in order, starting with the child who is furthest ahead.
$\qquad$
$\qquad$
$\qquad$
furthest
ahead

16 Alfie buys two books, each at the same price.

He pays with a $£ 10$ note and gets $£ 2.30$ change.


## What is the cost of one book?



Total out of 4

This graph shows the distance Alfie and Chen walked in an afternoon. They started at 1:45pm and had two breaks.


How many kilometres did they walk between the first and second breaks?


At what time did Alfie and Chen start their second break?


18 Here is a spinner.

Write a whole number in each section of the spinner so that it is certain you will get a number less than 4 and it is impossible you will get an even number.


18

## 19 Calculate $816 \div 24$


$\qquad$

20
Chen and Megan each have a parcel.
Chen's parcel weighs $1 \frac{1}{2} \mathrm{~kg}$.
Megan's parcel weighs 1.2kg.

How many more grams does Chen's parcel weigh than Megan's parcel?


What is $\mathbf{5 0 \%}$ of Megan's number?


22 Write these in order of size, starting with the smallest.
$\frac{2}{3}$
0.5
$\frac{3}{5}$
0.65

smallest
$\qquad$


He makes this shape using three of the rectangles.


## What is the perimeter of Alfie's shape?




A cake costs 15 p more than a biscuit.

Megan bought a cake and two biscuits for 90p.

How much do a cake and a biscuit each cost?

$\qquad$

25 Chen and Megan each have a set of numbered counters.


Chen


They each take one of their own counters without looking.

Chen says,

## 'I am more likely than Megan to get a 4’



## Explain how you know.



## [BLANK PAGE]

Please do not write on this page.

## Standards <br> \& Testing Agency

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