BANCROFT'S
11+ Test

Sample Mathematics Entrance Paper

Time allowed 30 minutes

First name	
Last name	
Date of birth	
Name of my school	

Instructions:

- This exam is 30 minutes long
- The exam is out of 35 marks
- There are 18 questions

EQUIPMENT

- All you will need is a pencil or a pen and a rubber
- No calculators are allowed

ADVICE

- The questions get progressively harder
- They are designed to challenge you and make you think

Try your best

1. Fill in this multiplication grid

×				4
	16		6	
	56		21	
	40	45		20
6				

(3)

2. The sum of eight single-digit positive whole numbers in 19.
   Seven of these numbers are equal, so what is the other number?

....(2)

3. A square of paper is folded in half and then in half again.
   Which of the following could NOT be the resulting shape? Choose one.

A ▢ B ▭ C △ D ◣ E ▽

....(1)

4. Work out $103 \div 4$

Write your answer as:

a) A decimal

....(1)

b) A mixed number

....(1)

5. 293 is multiplied by 3197. What will the unit's digit of the answer be?

....(1)

6. 38 +47 + 56 + 65 + 74 + 83 + 92 = ?

....(1)

7. Each brick must have a number shown on it, where each brick is the sum of the two bricks it stands on. Which number should replace **x** in this tower?
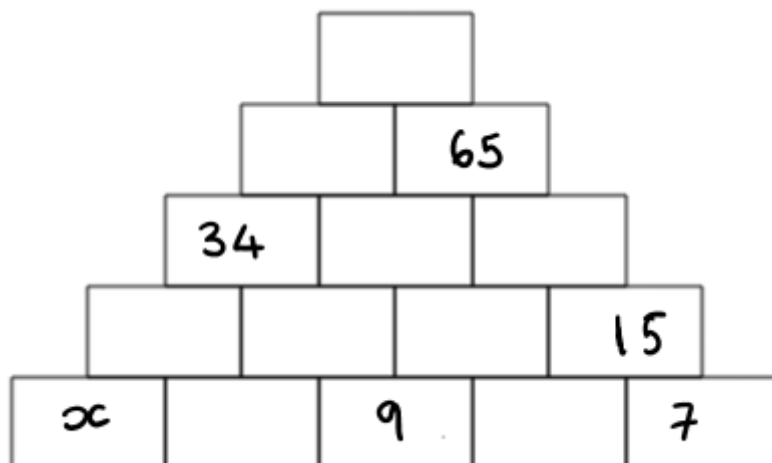
....(3)

8. The Extraordinary School of Languages has 100 students.
   40 of them study Mandarin and 30 study Urdu.

Given that 15 students study both Mandarin and Urdu, how many students study **neither**?

....(3)

9. Lance cycles twice as fast as his mum.
His mum cycles twice as fast as his younger cousin, Elsa.
They all set off together for a bike ride down the same straight path.
When Lance has cycled 1km, how far apart are his mum and Elsa?

....(2)

10. The diagram shows three squares of the same size. What is the value of 'x'?
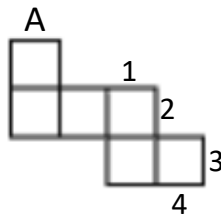
$x°$
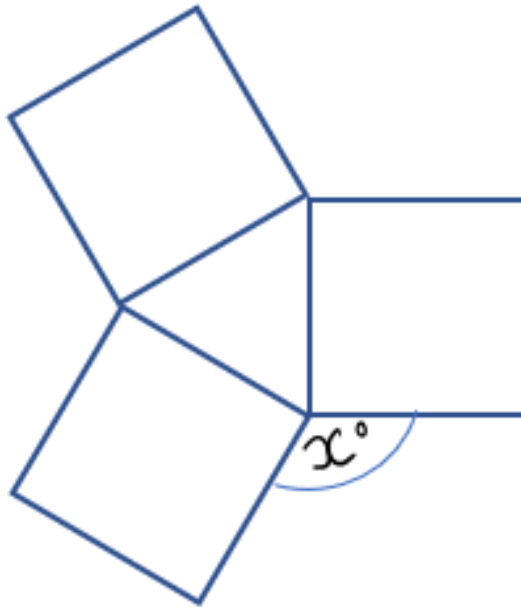
....(3)

11. In Carmen's pocket she has 5 strawberry jellybeans, 6 melon jellybeans and 7 apple jellybeans. How many jellybeans does she need to take out of

her pocket to guarantee having **at least one jellybean of each flavour?**

…………………………………………(1)

12. The diagram shows the net of a cube.
    Which edge (1, 2, 3 or 4) meets the edge A when folded?

A

1

2

3

4

…………………………………………(1)

13. Ari bought 6 strawberry swirls and 8 toffee twists for £1.66.
     Mika bought 6 strawberry swirls and 3 toffee twists for £1.11.
     How much is one strawberry swirl?

…………………………………………(3)

14. It is the year 2023. Khamsa, Sitta, Saba and Tamania have their 8th, 10th,
    11th and 11th birthdays today**. In what year** will their ages total 100?
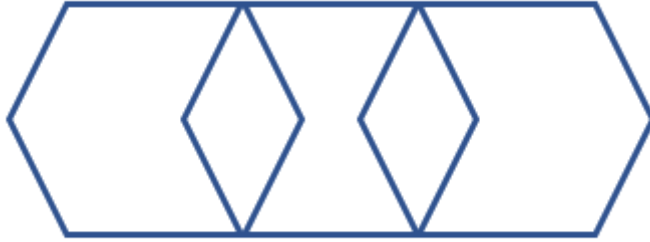
....(2)

15. Pythagoras Avenue has 245 houses on it, numbered 1 – 245.
Houses 46-89 inclusive will be knocked down to build a car park.
How many houses will remain on Pythagoras Avenue?

....(2)

16. This sentence contains the letter e _____times.
Write a **word** that is a number between 1-10 to make the sentence true.

....(1)

17. How many hexagons are there in this diagram?

....(1)

18.   4! = 1 x 2 x 3 x 4 = 24

5! = 1 x 2 x 3 x 4 x 5 = 120

How long is 7! seconds?   Give your answer in hours and minutes.

....(3)

END OF TEST. NOW GO BACK AND CHECK YOUR WORK.