



11+ ENTRANCE EXAM

SAMPLE MATHS PAPER

Time allowed: 1 hour

Calculators are not allowed.

Write your candidate number in the box above.

There are **two parts** to this paper.

The first section is made up of multiple choice questions. For each question use pencil to put a circle around the correct answer. If you make a mistake, rub it out and circle the correct answer. You should spend no more than 25 minutes on this section.

As soon as you have finished this section, or after 25 minutes, you should move on to the second section.

The second section contains questions where you may need to show your methods and your working out. The last question is a puzzle-type question. If you finish this section you may go back to the earlier section if you need to.

Do not write in this area.

Results:

Section A	/ 25
Section B	/ 50





Section A

You may use rough paper for working out but this will not be marked. Only the answers you circle will be marked.

For each question, circle the correct answer in pencil.

1. Which of these numbers is *not* a prime number?

- A 2
- B 5
- C 7 D 9

2. In the number 2.369 what does the 6 mean?

- A 6

- C $\frac{6}{10}$ D $\frac{6}{100}$

3. What is 25% of £84?

- A £59
- B £21
- C £109 D £42

4. What is the sum of the first four odd numbers?

- A 4
- B 10
- C 16
- D 20

5. How many factors do 8, 12 and 20 have in common?

- A 1
- B 2
- C 3
- D 4

6. If a = 5 what is 2a?

- A 10
- B 52
- C 7
- D 25

7.

If x + 12 = 17, what is x?

- A 29
- B 5
- C 17
- D none of these

O	
А	_

When t = 4, which answer is the odd one out?

- A 2t
- B t + 2
- C 32 ÷ t
- D t+4

9.

I think of a number, double it and add 3. My answer is 15. What was my number?

- A 6
- B 12
- C 33
- D 18

10.

What is another way of writing a + a + a + a ?

- A a^4
- B 4*a*
- C a4
- D aaaa

11.

An angle of 270° is called:

- A obtuse
- B reflex
- C acute D a straight-angle

12.

Does a rectangle have rotational symmetry?

- A not enough information
- **B** sometimes

C never

D always

13.

Here is a net of a 3-D shape.

What 3-D shape can be made by folding up this net?



- A a triangular prism
- B a pyramid

C a cuboid

D a cube

14.

A rectangle has an area of 20 cm². Its longer sides each measure 5cm. What is its perimeter?

- A 9cm
- B 18cm
- C 20cm
- D 25cm

15.

A triangle has angles of 80° and 20° . The third angle is:

- A 20°
- B 100°
- C 80°
- D 180°



16.

Four girls have an average height of $1\cdot 4m$. A boy, also of height $1\cdot 4m$, joins them. The average height of all five will:

A increase

B stay the same

C decrease

D can't say

17.

What is the *mode* of these numbers? 1 1 1 2 3 4 6

- A 2
- B 5
- C 1
- D 18

18.

If a fair dice is rolled 30 times, how many times would you expect to get a "2"?

- A 15
- B 6
- C 5
- D 2

19.

One inch is about 2.5 cm. There are 12 inches in 1 foot. How many cm are there in two feet?

- A 12 cm
- B 14.5 cm
- C 24 cm
- D 60 cm

20.

Sam chooses a letter at random from the word **ATTITUDE.** Which word or phrase best describes his chances of choosing the letter **T**?

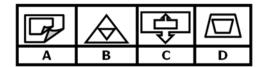
- A likely
- B uncertain
- C unlikely
- D even chance

21.

Here are four shapes in a row. They all have something in common except one.

Which is the odd one out?

Circle the letter.



22.



as











23.

How many triangles are in this diagram?

(Remember that the triangles may be of different sizes!)



A 5

B 6

C 1

D 4

24.

If
$$a = 4$$
 and $b = 2$, what is $\frac{a+b+3}{3}$?

A 3

B 423

C 2

D 15

25.

Will's calculator is broken. The + and the – buttons are the wrong way round.

What will he get if he types in 7 - 4 + 1?

A 12

B 10

C 4

D 2



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