



**DAY WATERMAN
COLLEGE**

ENTRANCE EXAMINATION INTO YEAR 7

SAMPLE MATHEMATICS PAPER

TIME ALLOWED: 1 HOUR

NAME: _____

SCHOOL: _____

DATE OF BIRTH: _____

CENTRE: _____

DATE OF EXAMINATION: _____

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. Write your answers clearly.
2. You may do the questions in your head if you think they are easy, or do your working in the space provided.
3. If you do not show any working and your answer is wrong then you will get no marks.
4. If your answer is wrong but you have shown some working then you may still earn some "method" marks.
5. Calculators must NOT be used.
6. The approximate number of marks for each question is shown in brackets, e.g. [2]
7. If you do not clearly understand a question, do NOT waste time on it but move on to the next question. You can come back to it later.
8. Attempt all questions.

DO NOT START UNTIL YOU ARE TOLD TO DO SO. GOODLUCK!

1.	<p>Do these addition sums:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> $\begin{array}{r} \text{i) } 2\ 3\ 8 \\ +\ 5\ 4\ 1 \\ \hline \end{array}$ </div> <div style="text-align: center;"> $\begin{array}{r} \text{ii) } 3\ 6\ 7 \\ +\ 8\ 3\ 6 \\ \hline \end{array}$ </div> </div>	[4]
2.	<p>Do these subtractions:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> $\begin{array}{r} \text{i) } 7\ 5\ 8 \\ -\ 4\ 1\ 1 \\ \hline \end{array}$ </div> <div style="text-align: center;"> $\begin{array}{r} \text{ii) } 4\ 2\ 1\ 6 \\ -\ 1\ 9\ 5\ 2 \\ \hline \end{array}$ </div> </div>	[4]
3.	<p>Find the cost of 21 Christmas stamps at 19 kobo each.</p> <p style="text-align: right;">Answer: #_____ : _____K</p>	[2]
4.	<p>Inside a Lagos Santa's grotto the temperature is $+19^{\circ}\text{C}$ due to air-conditioning. Outside, the temperature is $+32^{\circ}\text{C}$. How much warmer is it outside Santa's grotto compared with inside?</p> <p style="text-align: right;">Answer: _____ $^{\circ}\text{C}$</p>	[1]
5.	<p>The area of Delta state is approximately 528 100 square kilometres. Write this number in words.</p> <p>Answer: _____</p> <p style="text-align: right;">_____ square kilometres</p>	[2]

6. Kola has four favourite horses. Here is some information about them.

Name	Height (cm)	Weight (kg)	Speed (kilometres per hour)
Dasher	112	135.5	21
Comet	107	142.4	19
Vixen	99	138.8	22
Rudolph	105	141.3	25

i) Which horse is the tallest?

Answer: _____ [1]

ii) Which horse is the heaviest?

Answer: _____ [1]

iii) Find the total weight of all four horses.

Answer: _____ kg [2]

iv) Kola decides to ride Rudolph on a round trip of 2500 kilometres. How many hours will this trip take them?

Answer: _____ hours [2]

7. a) Multiply 54 by 10.

Answer: _____ [1]

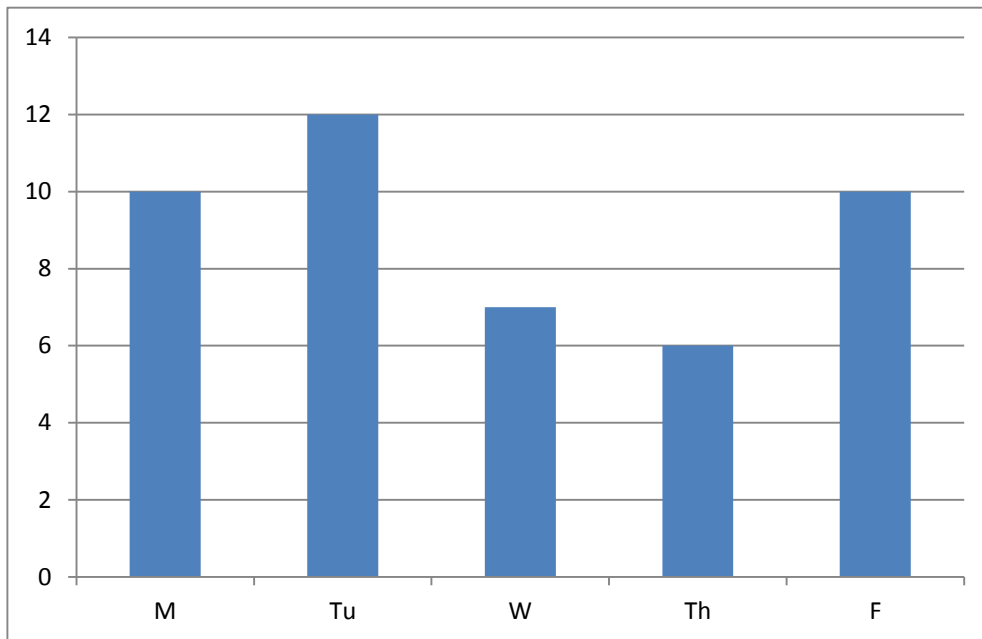
b) Multiply 21 by 200.

Answer: _____ [1]

8.	<p>Write down the next two numbers in each of these number patterns:</p> <p>a) 3, 5, 7, 9, _____ , _____</p> <p>b) 3, 4, 6, 9, _____ , _____</p> <p>c) 192, 96, 48, 24, _____ , _____</p>	<p>[2]</p> <p>[2]</p> <p>[2]</p>								
9.	<p>Four children took part in a 2000 metre race. One of them fell down during the race, and had to pick up before continuing the race. Here are their times:</p> <table border="1" data-bbox="440 667 930 856"> <tr> <td>Alice</td> <td>3 minutes 13 seconds</td> </tr> <tr> <td>David</td> <td>2 minutes 55 seconds</td> </tr> <tr> <td>Richard</td> <td>4 minutes 17 seconds</td> </tr> <tr> <td>Sandra</td> <td>3 minutes 44 seconds</td> </tr> </table> <p>i) Who was the fastest? Answer: _____</p> <p>ii) How many seconds after David did Alice finish?</p> <p> Answer: _____ seconds</p> <p>iii) How many seconds after Sandra did Richard finish?</p> <p> Answer: _____ seconds</p> <p>iv) Who do you think might have fallen down?</p> <p> Answer: _____</p>	Alice	3 minutes 13 seconds	David	2 minutes 55 seconds	Richard	4 minutes 17 seconds	Sandra	3 minutes 44 seconds	<p>[1]</p> <p>[1]</p> <p>[1]</p> <p>[1]</p>
Alice	3 minutes 13 seconds									
David	2 minutes 55 seconds									
Richard	4 minutes 17 seconds									
Sandra	3 minutes 44 seconds									
10.	<p>Below is a list of numbers:</p> <p>2 3 5 7 15 17 21 29 32 51 85</p> <p>From the above list of numbers, write down</p> <p>(i) A multiple of 4 Answer: _____</p> <p>(ii) A prime number greater than 17 Answer: _____</p> <p>(iii) Prime factors of 51 Answer: _____</p> <p>(iv) The median number Answer: _____</p> <p>(v) The product of 5 and 17 Answer: _____</p>	<p>[1]</p> <p>[1]</p> <p>[2]</p> <p>[1]</p> <p>[1]</p>								

11.	<p>i) A large bowl of orange and apple fruit drink contains 4800 millilitres. Write this amount in litres.</p> <p style="text-align: right;">Answer: _____ litres</p> <p>ii) A home-made Christmas cake weighs 3 kilograms and 80 grams. Write this amount in grams.</p> <p style="text-align: right;">Answer: _____ grams</p> <p>iii) A table is 151 centimetres long. Write this amount in metres.</p> <p style="text-align: right;">Answer: _____ metres</p>	<p>[1]</p> <p>[1]</p> <p>[1]</p>
12.	<p>Ken Saro-Wiwa, a Nigerian writer and an activist who fought for ecological and social justice, was born on October 10, 1941 and died on November 10, 1995. How old was Ken Saro-Wiwa when he died?</p> <p style="text-align: right;">Answer: _____ years old</p>	[1]
13.	<p>Kemi and Fola sat down to have their Christmas Dinner at 11.55 a.m. They finished at 2.40 p.m. For how long did the lunch last?</p> <p>i) Give your answer in hours and minutes:</p> <p style="text-align: right;">Answer: _____ hours _____ minutes</p> <p>ii) Now convert this answer to minutes:</p> <p style="text-align: right;">Answer: _____ minutes</p>	<p>[2]</p> <p>[1]</p>
14.	<p>It rained for 128 days in a particular year.</p> <p>a) How many weeks and days does the rain last for the year?</p> <p style="text-align: right;">Answer: _____ weeks _____ days</p> <p>b) How many hours does the rain last for the year?</p> <p style="text-align: right;">Answer: _____ hours</p>	<p>[2]</p> <p>[2]</p>

15. The diagram shows the number of Christmas cards I received each day during five days leading to Christmas. M indicates Monday, Tu Tuesday and so on.



- i) On which day did I receive the most number of cards?

Answer: _____

[1]

- ii) How many cards did I receive in total during these five days?

Answer: _____

[2]

- iii) How many cards did I receive each day, on average, over these five days?

Answer: _____

[2]

16. 51 students go on a trip to a zoo. It costs N9.99 for each person. Paul says: "The total cost is approximately N500"

- i) Explain how you think Paul came up with that approximate value.

Answer: _____

[1]

- ii) Work out the exact value of the total cost.

Answer: N _____

[2]

17. A toy shop is having a New Year sale.

Toy	Normal Price	Offer	Sale Price
Bulls eye	N8.50	Save N1 off Normal Price	N
Stinky Pete	N12.00	Save $\frac{1}{4}$ of Normal Price	N
Woody	N15.00	Save one-fifth of Normal Price	N
Buzz	N	Pay three-quarters of the Normal Price	N13.50

[1]

[1]

[1]

[1]

i) There are four missing values in the table above. Fill them in.

The toyshop also offers Jessie toys on special offer:

***Buy one Jessie toy at Normal Price,
and the second at half price.***

Segun decides to buy two Jessie toys. The cost is exactly the same as if he had bought two Buzz toys.

ii) Work out the Normal Price for a Jessie toy.

Answer: N_____

[3]

18. Work out 347 multiplied by 25.

Answer: _____

[3]

19. This question is all about the numbers 3, 6, 7, 8. Imagine that you have four cards, each carrying a different one of these numbers:

1

2

3

4

i) Fill in the gaps in this addition problem. You must use each card exactly once.

$$\square \square 9 + 70 = \square \square 9$$

[4]

ii) Fill in the gaps in this subtraction problem. You must use each card exactly once.

$$\square 5 \square - 71 = \square 8 \square$$

[4]

iii) Chris decides to put the four cards into a multiplication problem, so that the answer is as small as possible. Fill in the gaps in the diagram below. Also, calculate the answer to the multiplication problem.

$$\square \square \times \square \square = \dots\dots\dots$$

[4]

20. Work out this division:

252 divided by 9

Answer: _____

[2]

21.	<p>Three children have been counting the number of presents they have under the Christmas Tree. Akin has 5 presents, Bola has 6 presents and Stella has 9 presents.</p> <p>i) What fraction of the presents is for Akin?</p> <p style="text-align: right;">Answer: _____</p> <p>ii) What percentage of the presents is for Stella?</p> <p style="text-align: right;">Answer: _____ %</p>	<p>[2]</p> <p>[2]</p>
22.	<p>Here is a list of all the whole numbers from 30 to 40 inclusive:</p> <p style="text-align: center;">30 31 32 33 34 35 36 37 38 39 40</p> <p>i) Write down the two prime numbers from the list: _____, _____</p> <p>ii) Write down the multiple of 11 from the list: _____</p> <p>iii) Write down a square number from the list: _____</p> <p>iv) Write down the multiples of 8 from the list: _____, _____</p> <p>v) Write down any factors of 120 from the list: _____, _____</p>	<p>[2]</p> <p>[1]</p> <p>[1]</p> <p>[2]</p> <p>[2]</p>
23.	<p>i) Find 50% of 260. Answer: _____</p> <p>ii) Find 70% of 310. Answer: _____</p> <p>iii) Find 21% of 1600 Answer: _____</p>	<p>[2]</p> <p>[2]</p> <p>[3]</p>

STOP. Now go back and check your answers carefully.

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