MATHEMATICS

PM

12/11/2018   9AM - 11AM

REB
Rwanda Education Board

Pupil's complete index number

Province/ City	District	Sector	School	Pupil	Year

Pupil's names

Surname: ....

Other names: ....

NB: PUPIL'S INDEX NUMBER AND NAMES **MUST** BE WRITTEN AS THEY APPEAR ON THE REGISTRATION FORM.

PRIMARY LEAVING NATIONAL EXAMINATIONS, 2018

MATHEMATICS

Duration: Two hours

Marks: /100

INSTRUCTIONS

1) Do not open this question paper until you are told to do so.
2) *This paper consists of 12 pages and 35 questions. Before starting, check if all pages and all questions are there and are arranged in ascending order.*
3) Answer **ALL** questions in this paper.
4) Read each question carefully before answering it.
5) Answer the questions in the space provided in this question paper.
6) Show your working clearly. Marks will be given for showing steps.
   All rough work must be done in the space under each question.

7) You must use a **blue** or **black** pen.
8) You are allowed to use a ruler and a protractor.
9) You are **NOT** allowed to use a calculator.

ANSWER ALL QUESTIONS IN THIS PAPER (100 MARKS)

YOU MAY DO ROUGH WORK IN THE SPACE PROVIDED BELOW EACH QUESTION.	GIVE YOUR ANSWERS IN THE SPACE PROVIDED IN THIS COLUMN. SHOW THE WORKING STEPS.
1) Subtract: 867,523 – 374,238. **(2marks)**	
2) Test whether 298 is divisible by 9. **(2marks)**	
3) If a + b = 20 and b = 8, find the value of a. **(2marks)**	
4) Write in figures: Four hundred forty five million, five hundred eight four thousand and four hundred nine. **(2marks)**	
5) Round off 412928.92 to the nearest whole number. **(2marks)**	
6) What is the place value of 7 in the figure 75 325 961? **(2marks)**	

7) Work out: 3 × (15+5)-7= **(2marks)**	
8) How many millilitres of water does a bottle of five litres have? **(2marks)**	
9) Find the value of -3a-4b if a=2 and b=-3. **(2marks)**	
10) Arrange in ascending order $\frac{3}{10}; \frac{5}{12}; 0.75; \frac{2}{15}$ **(2marks)**	
11) Solve for x the following equation: $x-7=-2x-1$ **(2marks)**	
12) Work out $\frac{0.72 \times 0.24}{0.48} =$ **(2marks)**	

13) Simplify the expression: $2(a-3) + 4b - 2(a-b-3) + 5$ **(2marks)**	
14) The interior angle of a regular polygon is 145^0 Find the size of the exterior angle of the polygon. **(2marks)**	
15) Find the area of a regular pentagon whose side is 4cm and apothem is 2cm. **(2marks)**	
16) Calculate $3\frac{5}{7} + 2\frac{2}{3} =$ **(2marks)**	
17) The circumference of a circle is 314cm. Find its diameter in cm (use π =3,14). **(2marks)**	
18) If two numbers have a difference of 381 and a quotient of 4. Determine these numbers. **(2marks)**	

19) A man's step is 80cm. How many such steps can he make in a distance of 40dm? **(2marks)**	
20) Share 170 notebooks among 9 pupils. Give your answer as a mixed fraction. **(2marks)**	
21) A motorcyclist rides 15km in one hour. How many hours does he take to ride 45km? **(2marks)**	
22) Find the area of a circle whose diameter is 28m. **(2marks)**	
23) Given that the total number of pupils in P6 class is 32 and the difference between the number of boys and that of girls in the class is 10. (a) Calculate the number of boys in the class. **(1mark)** (b) Calculate the number of girls in the class. **(1mark)**	

24) Calculate 12% of 280,000. **(2marks)**

25) Dora has 10,000Frw. She took $\frac{3}{5}$ of
that money to buy shoes.
Calculate the sum of money she spent
on shoes.   **(2marks)**

26) A man's salary increased in the ratio
2:3. If he was earning 70,000Frw.
Calculate his new salary.   **(3marks)**

27) The cost of a Science book and a bag
is 75,000Frw altogether. The book
costs 15,000Frw more than the bag.
Find:
(a) The cost of the bag.   **(2marks)**

(b) The cost of the book.   **(2marks)**

28) A woman deposited 600,000 Frw in the Bank for 2 years at an interest rate of 4% per year. (a) Calculate the interest she got after the second year. **(2marks)** (b) Calculate the total amount she got after 2 years. **(1mark)**	
29) (a) Name the regular polygon which has 12 sides. **(1mark)** (b) What is the interior angle of a regular octagon? **(1mark)**	
30) The area of a rectangle is 15 square decimeters and its length is 50 centimeters. Find the width of the rectangle. Give your answer in centimetres. **(3marks)**	
31) Manu, Ally and Eden are friends. They contributed money for paying the insurance of the old people in their cell in 3 to 4 to 5 parts respectively. Manu contributed 40,000Frw. (a) How much did Ally contribute? **(3marks)**	

(b) How much did Eden contribute? **(3marks)**

(c) Calculate the total contribution of the three members. **(1mark)**

32) In a Conference hall, $\frac{2}{6}$ of seats are filled by women, $\frac{1}{5}$ by men and $\frac{1}{3}$ by children.

(a) What fraction of the conference hall is occupied? **(2marks)**

(b) What fraction of the conference hall is not occupied? **(1mark)**

(c) How many people are in the conference hall if the whole conference room contains 9000 seats? **(1mark)**

(d) Calculate the number of men who are present. **(1mark)**

(e) Calculate the number of women who are present. **(1mark)**

(f) Calculate the number of children who are present. **(1mark)**

33) (a) What is the volume of a cylinder which is 4cm high and whose circular face has a diameter of 2cm?   **(2marks)**

(b) Three friend Lorina, Lariga and Lona contributed to start a business. Lorina paid $\frac{4}{10}$ of the total contribution, Lariga contributed $\frac{3}{10}$ of the total   contribution.

(i) What fraction did Lona contribute?
(2marks)

(ii) If Lona contributed 60,000 Frw, what was their total contribution?   **(3marks)**

34) The table below shows how primary four (P4) class scored in English Test out of 100.

Marks	50	30	40	42	80	70
Frequency	2	5	8	10	6	4

(a) Complete the table across with the above information (the first row was completed for you).   **(3marks)**

(a)

Marks(x)	Frequency(f)
30	5
$\sum x = ...$	$\sum f = ...$

(b) How many pupils are in P4?   **(1mark)**

(c) Find the highest marks in the class.
                                    (1mark)

(d) What is the mark obtained by many students?   **(1mark)**

(e) How many pupils obtained the lowest marks?   **(1mark)**

35) A bicyclist covered a journey from Centre A to Centre B in 3hours at a speed of 20km/h and he took 1hour to return through the same distance.
(a) Calculate the distance from A to B.   **(2marks)**

(b) Calculate the total distance of the whole journey.   **(1mark)**

(c) Calculate the total time used to cover the whole journey.   **(2marks)**

(d) Calculate the average speed used for the whole journey.
(Write the answer in m/s). **(2marks)**