

Mathematics

PM

17/07/2023 09:00 AM-11:00 AM



Pupil's complete index number

Province /City	District	Sector	School	Level	Pupil	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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, 2022-2023

MATHEMATICS

DURATION: Two hours

Marks:

INSTRUCTIONS:

- 1) Do not open this paper until you are told to do so.
- 2) Attempt **ALL** questions in this paper
- 3) Read each question carefully before answering it.
- 4) Answer the questions in the space provided on this question paper.
- 5) Show your working clearly. Marks will be given for showing steps.
- 6) 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.
- 8) **You are NOT allowed to use a calculator.**

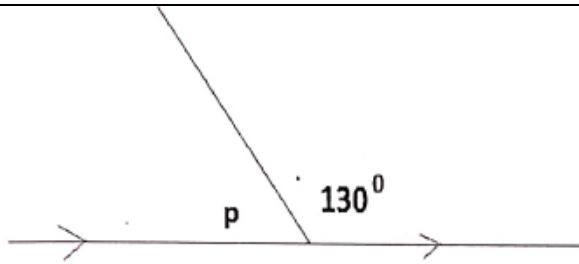
ATTEMPT ALL QUESTIONS IN THIS PAPER

(100 marks)

YOU MAY DO ROUGH WORK IN THE SPACE PROVIDED BELOW EACH QUESTION.	GIVE YOUR ANSWER IN THE SPACE PROVIDED IN THIS COLUMN. SHOW THE WORKING STEPS.
1) Write the following number in words: 59,648,205 (2 marks)	
2) Write the place value of digit 5 and 4 in the number 6,859,174 (2 marks)	
3) Add vertically $4,985,678 + 2,378,522 =$ (2 marks)	
4) Use $<$, $>$ or $=$ to compare the following: a) 260,340 <input type="text"/> 260.340 (1 mark) b) 25,159,0000 <input type="text"/> 25159×1000 (1 mark)	
5) Round off 14.9781 to the nearest tenths. (2 marks)	
6) Find the missing two numbers in the sequence below: (a) 3; 8; 13; 18;; ... (2 marks)	

<p>7) Define an 'obtuse angle". (2 marks)</p>	
<p>8) Define the term "Probability" of an event. (2 marks)</p>	
<p>9) Convert 0.54 into fraction and simplify the answer completely. (2 marks)</p>	
<p>10) Calculate 20% of 300. (2 marks)</p>	
<p>11) Work out the following integers:</p> <p>a) $(-10) - (-8)$ (1 mark)</p> <p>b) $(+8) \times (-5)$ (1 mark)</p>	

<p>12) Use quick multiplication to calculate the following:</p> <p>$567 \times 99 =$ (2 marks)</p>	
<p>13) Find $\frac{2}{3}$ of 21 (2 marks)</p>	
<p>14) Write the multiples of 3 between 10 and 17. (2 marks)</p>	
<p>15) Find the LCM of the numbers 36, 84 and 75. (2 marks)</p>	
<p>16) Workout the following:</p> <p>$4.5 \text{ kg} + 13.6 \text{ dag} = \dots \text{ kg}$ (2 marks)</p>	
<p>17) Find the value of angle p in the figure below if p is the supplementary of 130°. (2 marks)</p>	



18) The interior angle of a regular polygon is 108° . Find its exterior angle. **(2 marks)**

19) Fill in the missing numbers.

(a) $\frac{2}{3} = \frac{8}{\quad}$ **(1 mark)**

(b) $\frac{4}{5} = \frac{\quad}{20}$ **(1 mark)**

20) Workout $\frac{0.1 \times 0.36}{0.09}$ **(2 marks)**

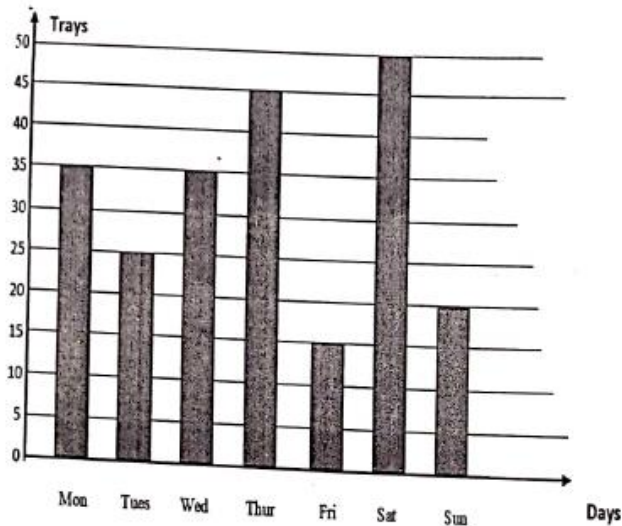
21) The diameter of a circular ring is 21cm.
What is its circumference: Take $\pi = \frac{22}{7}$
(2 marks)

<p>22) Convert the following units: (a) $14 \text{ m}^3 = \dots \text{ dal} = \dots \text{ kg}$ (2 marks)</p>	
<p>23) A rectangular box has 65cm in length, 40cm width and 28cm height. Calculate the volume of the box. (2 marks)</p>	
<p>24) Anine and Bollen shared 25 sweets in the ratio 2 : 3 respectively. How many sweets did each get? (2 marks)</p>	
<p>25) Arrange the following numbers in ascending order: 5; 0.56; 2; $\frac{3}{10}$; 0.09 (2 marks)</p>	
<p>26) After increasing a number by 15%, it became 34,400. What is the number? (3 marks)</p>	

27) Workout $\left(\frac{3}{5} + \frac{2}{5}\right) \div \frac{1}{2} =$ (3 marks)	
28) Solve the following equation: $4 - x = 5x - 8$ (3 marks)	
29) A private school has 617 pupils. If one pupil pays 152 800Frw in school fees per term, how much money do they pay altogether in one term? (3 marks)	
30) Electric poles are fixed along one side of a 16 km section of a road. This was to light the road. The poles are placed 10 m apart from each other. How many poles are fixed? (3 marks)	
31) A father earns a salary of 250 000 Frw in a month. He spends his money as follows: Rent: 30 000 Frw School fees: 55 000 Frw Food: 35 000 Frw	

<p>Transport: 15 000 Frw He saves the remaining money.</p> <p>(a) How much money does he spend in total each month? (3 marks)</p> <p>(b) How much does he save each month? (2 marks)</p> <p>(c) Why do you think it is important for the father to save?</p>	
<p>32) Bus n°1 travelling at 60km/h left Kigali at 8;30 a.m. Nus n°2 travelling at 80km/h followed it after 1 hour.</p> <p>(a) When did Bus n°2 overtake Bus n°1? (5 marks)</p> <p>(b) What distance had both Buses covered? (2 marks)</p>	
<p>33) A business woman borrowed 480,000Frw from UMURENGE SACCO for 2 years. The interest rate offered was 12% per year.</p> <p>(a) How much interest did she pay back?</p>	

<p style="text-align: right;">(4 marks)</p> <p>(b) What amount did she pay to UMURENGE SACCO? (3 marks)</p>	
<p>34) A mixture of yellow maize flour and white maize flour costs 400Frw per kg. 20 kg of yellow maize flour costs 350Frw per kg. Find the kilograms for the white maize flour. (7 marks)</p>	
<p>35) Study the diagram below which shows the number of eggs harvested by a company (in trays) for a whole week from Monday to Sunday.</p>	



- a) How many days are shown on the graph? **(1 mark)**
- b) Find the number of trays collected in the whole week? **(1 mark)**
- c) On which day did the company collect the smallest number of trays of eggs? **(1 mark)**
- d) On which day did the company collect the biggest number of trays of eggs? **(1 mark)**
- e) On which day did the company collect the same quantity of trays? **(1 mark)**
- f) If one tray of eggs was sold at 4500Frw, how much money did the company get from eggs in a week? **(1 mark)**