

Mathematics

PMA

22 Oct. 2013 09 :00-11 :00 a.m

Pupil's complete index number

Province District Sector School Pupil
or City

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Pupil's names

Surname:

Other names:

REPUBLIC OF RWANDA



RWANDA EDUCATION BOARD

PRIMARY LEAVING NATIONAL EXAMINATIONS, 2013

MATHEMATICS

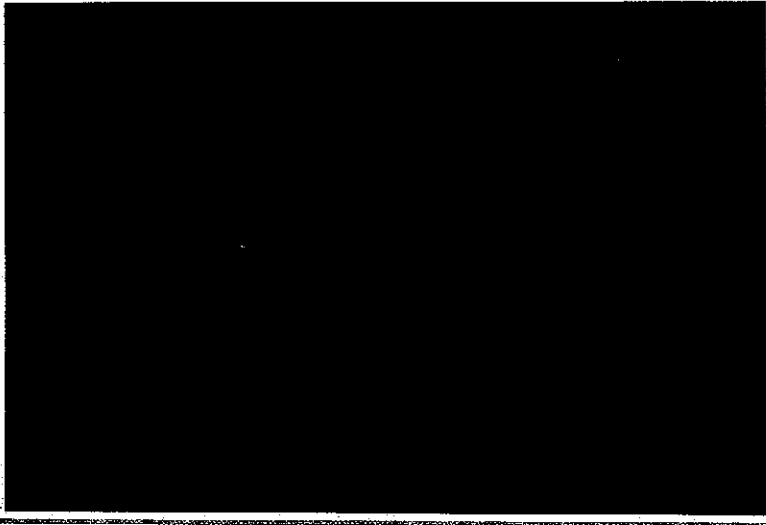
Duration: Two hours

Marks:

/100

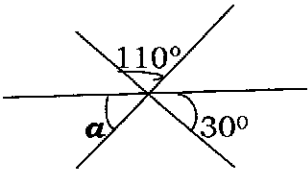
INSTRUCTIONS

- 1) Don't open this question paper until you are told to do so.
- 2) ***This paper consists of 12 pages and 35 questions. Before starting, verify if all pages and all questions are there and are arranged in order.***
- 3) ***Write your complete index number and names in full (as written on your registration form) in the spaces provided above.***
- 4) Answer **ALL** questions in this paper.
- 5) Read each question carefully before answering it.
- 6) Answer the questions in the space provided on this question paper.
- 7) Show your working clearly. Marks will be given for showing steps.
All rough work must be done in the space under each question.
- 8) You must use a blue pen.
- 9) You are allowed to use a ruler, and a protractor.
- 10) **You are not allowed to use a calculator.**



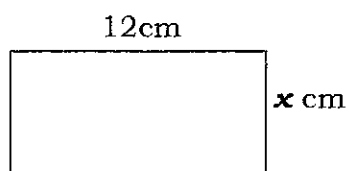
ANSWER ALL QUESTIONS IN THIS PAPER.

(100 marks)

Do rough work below each question	Show the working steps and final answer in this column
1. Add: $2,045 + 1,055 + 900$. (2 marks)	
2. Write in words: 3,005. (2 marks)	
3. Add: $200\text{g} + 0.04\text{kg} =$ dag. (2 marks)	
4. Find the size of angle a in the figure below: (2 marks) 	
5. Calculate: 0.84×25 . (2 marks)	

6. Simplify completely: $\frac{3}{7} \div \frac{9}{14}$. (2 marks)	
7. Find the value of m in the equation: $3m - 4 = 5$. (2 marks)	
8. Write the next two numbers in the following sequence : 1, 4, 9, ... , ... (2 marks)	
9. Divide 10,000 Rwf in the ratio 3: 7. (2 marks)	
10. Decrease 200kg by 20%. (2 marks)	

11. The perimeter of the rectangle below is 40cm. Find x . **(2 marks)**



12. The cost of 2kg of beans is 620 Rwf. Find the cost of 8kg of the beans. **(2 marks)**

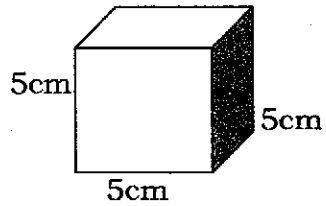
13. A number is increased by 20%. If the new number is 2,400, find the original number. **(2 marks)**

14. Find and fill in the missing numbers in the table below. **(2 marks)**

4	7	6	
9		13	21

4	7	6	
9		13	21

15. The solid below is a cube with a mass of 200g. Find its density. **(2 marks)**

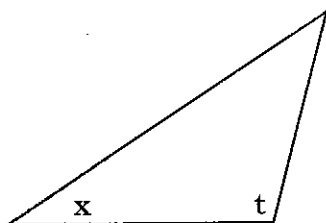


16. Find the Highest Common Factor (H.C.F) of 12, 15 and 21. **(2 marks)**

17. Using a protractor measure angles x and t:

a) $x =$ **(1 mark)**

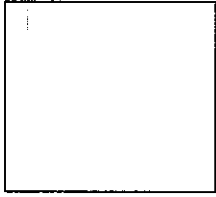
b) $t =$ **(1 mark)**



a) Angle $x =$

b) Angle $t =$

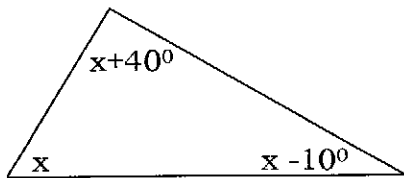
18. A man buys a car at 3,000,000 Rwf and sells it at 3,900,000 Rwf. What is the percentage profit? (2 marks)	
19. Simplify completely: $1\frac{1}{4} \times 1\frac{1}{15}$. (2 marks)	
20. Find the circumference of a circle whose radius is 5cm and $\pi = 3.14$. (2 marks)	
21. If $a = -1$, $b = 2$ and $c = -3$, find the value of: $ab + 2ac$. (2 marks)	

22. How many lines of symmetry does a square have? (1 mark) Draw the lines of symmetry in the square on the right. (1 mark)	
23. Calculate: $2\text{h}12\text{min} - 1\text{h}50\text{min}$. (2 marks)	
24. How many 500ml bottles can be filled from 2 litres of water? (2 marks)	
25. Electricity poles are fixed 50m apart along a distance of 4,500m. How many poles are fixed? (2 marks)	
26. The sum of three consecutive odd numbers is 39. Find the three numbers. (3 marks)	

27. Calculate and express the answer in base ten : $111_{\text{two}} + 102_{\text{three}}$. (3 marks)	
28. Six (6) men complete work in 4 days. How many days will 8 men complete the same work? (3 marks)	
29. Arrange the following in ascending order: $\frac{3}{7}, \frac{5}{14}, \frac{13}{28}$. (3 marks)	
30. Set E = { 2 , 3, 4 , 6 , 7 } and set F = {1, 3, 5, 7, 8}. Represent set E and set F on a Venn diagram showing the members of the different subsets. (3 marks)	

31. a) Solve: $\frac{2x}{4} - \frac{x+1}{3} = 2$. **(3 marks)**

b) Find the size of each angle in the figure below: **(4 marks)**



32. a) Simple interest of 20,000 Rwf was made for 2 years at 10% profit per year. Find the capital. **(3 marks)**

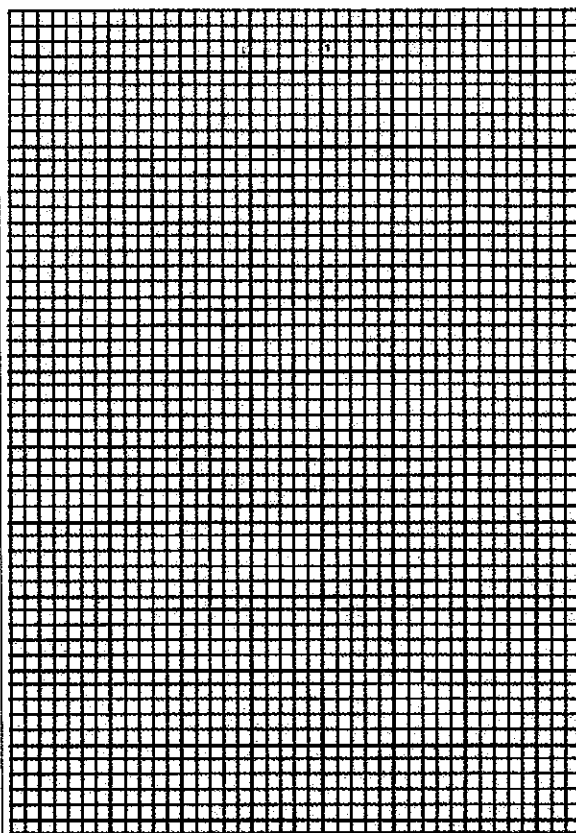
b) 8kg of beans costing 250 Rwf per kilogram is mixed with 12kg of another type of beans. If the cost of the mixed beans is 280 Rwf per kilogram, find the cost of 1kg of the second type of beans. (4 marks)	
33. Towns A and B are 300km apart. A car leaves town A at 8.00a.m for town B. At the same time a bus leaves town B for town A. The speed of the car is 90Km/hr and the speed of the bus is 60km/hr. a) At what distance in km from town A will the car meet the bus? (5 marks) b) At what time do the two vehicles meet? (2 marks)	

34. The following are the coordinates of points : (0,0), (1,2) and (3,6).

a) On the graph paper draw y-axis and x-axis (graduate the axes).
(2 marks)

b) Plot these points on the graph and join them with a line.
(4 marks)

c) If **A** (x , 3) is a point on the graph, find x. **(1 mark)**



35. The following are ages of 10 people :

35, 33, 36, 42, 33, 35, 40, 33, 40, 33.

Make a frequency table and calculate the mean age. **(7 marks)**