

Mathematics

PMA

28 Oct. 2008 9.00 am – 11.00 am

RWANDA NATIONAL EXAMINATIONS COUNCIL



P.O. BOX 3817 KIGALI-TEL/FAX : 586871

Pupil's complete index number

Province/City

District

Sector

School

Pupil

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PRIMARY LEAVING NATIONAL EXAMINATION

October 2008

MATHEMATICS

Time: Two hours

Marks :

/100

Instructions

This paper has two sections **A** and **B**.

SECTION A: Answer all questions. (65 marks)

SECTION B: Answer only five questions. (35 marks)

Write your index number in the space provided on your question paper.

Read each question carefully before answering it.

All rough work should be done in the space provided on your question paper.

Show neatly your work in the space provided on your question paper.

Do not use calculators or any other calculating device.

SECTION A: Answer all questions. (65 marks)

<i>Do rough work in this column</i>	<i>Write your answers in this column</i>
1. Calculate: $600 \times 0.75 + 0.25 \times 600$. (2)	
2. Write in figures: Eleven million eleven thousand and eleven. (2)	
3. Calculate and express the answer in ordinary fraction : $1\frac{1}{5} + 0.3$. (2)	
4. Simplify: $2x+5y-3x+y-4x+5x$. (2)	

5. Add and express the answer in hours: $61\text{min } 10\text{ s} + 58\text{min } 50\text{s}.$	(2)
6. How many twelfths are equivalent to one-third?	(2)
7. Solve $5x - 10 = 2x - 7$	(2)
8. Find the square root of 1296.	(2)

9. Write the next two numbers in the following sequence: 2, 5, 10, 17, . . . , . . . , (2)

10. Complete the table below. (2)

12	16	20	24
9	?	15	?

11. A ship leaves port A at twelve noon on Monday and sails to port B. After a hundred hours, the ship arrives at port B. (2)
- a) At what time does the ship arrive at port B?

- b) On which day of the week does the ship arrive at port B?

12. Use $<$ or $>$ to complete the following statement: (2)
- $\frac{7}{20} \dots \frac{11}{30}$.

13. 5 kg of sugar was reduced by 1.5 kg. In what ratio (2)
was the sugar reduced?

14. Find the simple interest on 300,000 frw for 4 (2)
months at 8% interest rate per year.

15. Find the curved surface area of a cylindrical tube (2)
with radius 3.5 cm and height 15 cm. $\pi = \frac{22}{7}$.

16. The following are marks scored by 9 pupils:
25, 30, 29, 25, 28, 25, 27, 28, and 30.
Find: (a) the mode mark. (1)

(b) the median mark . (1)

17. A cow was sold at a profit of 5% for 525,000 frw. What was the cost price? (2)

18. 500 g of bread contains 5 g of salt. How much salt is contained in 150 g of the bread? (2)

19. The perimeter of a square is 100 cm. Find the area of the square. (2)

20. The interior angle of a regular polygon is 150° . How many sides does the polygon have? (2)

21. Add and express the answer in square metres:
 $2.5 \text{ ha} + 11,000 \text{ dm}^2$. (2)

22. The diameter of a base of a cone is 6 cm and the height is 14 cm. Calculate the volume of the cone. (2)

$$\pi = \frac{22}{7}$$

23. The mass of a solid is 178 g and its density is 8.9 g/cm^3 . Calculate the volume of the solid. (2)

24. Trees are planted in a straight line on a stretch of land 2.16 km. The distance between a tree and the next tree is 1.8 m. Find the number of trees planted. (2)

25. Find the value of:
 $4m + 2x - y$ if $m = -2$, $x = 0$ and $y = -3$. (2)

26. At 40 km/hr a cyclist can complete a journey in 10 minutes more than at 60 km/hr. How long is the journey? (3)

27. Share 350,000 frw between John, Mary and Joy so that Joy receives $\frac{1}{2}$ of what Mary receives and Joy receives 2 times as much as John receives. (3)

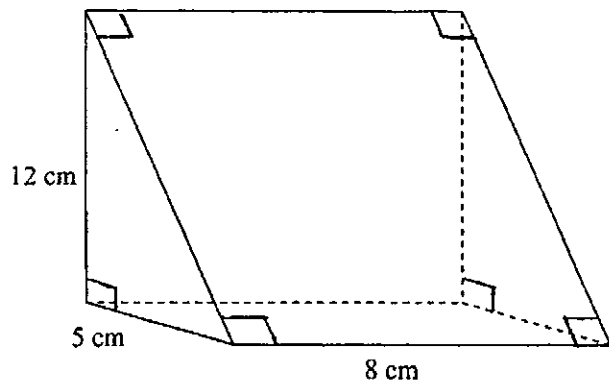
28. Find the amount of money if 1,000,000 frw is invested at 12% per year compound interest for 2 years. (3)

29. Arrange the following fractions in the ascending order: $\frac{2}{5}$, $\frac{4}{9}$, $\frac{11}{40}$ (3)

30. The ratio of the angles of a triangle is 4 : 3 : 2. Find the three angles. (3)

SECTION B: Answer only five questions. (35 marks)

31. Calculate the total surface area of the prism below. (7)



32. Solve: (a) $4(x - 1) = 2(x + 4)$.

(4)

(b) $\frac{x}{3} + 1 = \frac{x - 2}{2}$

(3)

33. 120 kg of beans costing 200 frw per kilogram is mixed with a second type of beans costing 240 frw per kilogram. How many kilograms of the second type of beans are needed to make the cost of 1 kg of the mixture to be 210 frw? (7)

34. Simplify completely: (7)

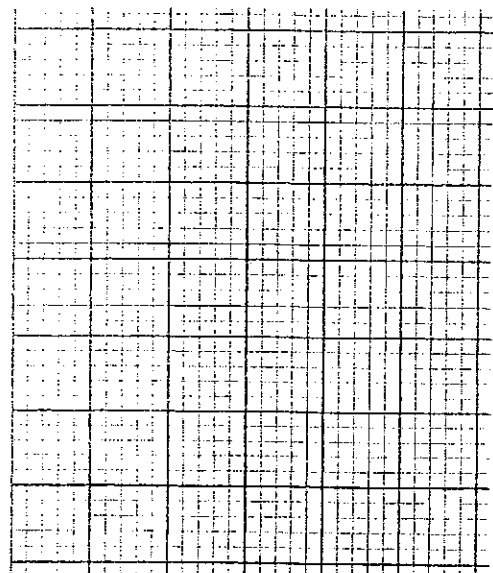
$$\left(1\frac{1}{4} - \frac{7}{10}\right) + \left(\frac{2}{3} + \frac{4}{9}\right) - \frac{1}{4}$$

35. The angles of a pentagon are x , $2x$, $2.5x$, $3x$, $3.5x$. Find each angle. (7)

36. Students were asked to name their favourite subjects at school. The results are shown below: (7)

Subject	Maths	History	Music	Physics	Religion
Number of pupils	2	4	5	1	3

Draw a histogram, on the graph paper on the right, to show this information.



37. The sum of the edges of a cube is 96 cm. Calculate: (a) the total surface area of the cube. Express the answer in dm^2 . (5)

(b) the volume of the cube. (2)

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