

YEAR 2006

PUPIL'S COMPLETE INDEX NUMBER

Province/City

| | |
|--|--|
| | |
|--|--|

District

| | |
|--|--|
| | |
|--|--|

Sector

| | |
|--|--|
| | |
|--|--|

School

| | |
|--|--|
| | |
|--|--|

Pupil

| | | |
|--|--|--|
| | | |
|--|--|--|

PUPIL'S FULL NAME

SUR NAME: _____

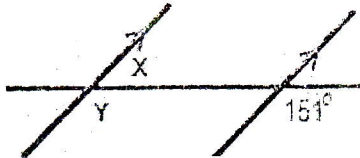
OTHER NAMES: _____

REVISION OF EXTRACTED QUESTIONS FROM PRIMARY LEAVING EXAMINATION 2006

MATHEMATICS

Duration: 2 hours

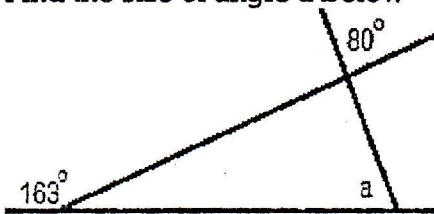
SECTION A (65 MARKS)

| | | | |
|---|--|---|---|
| 1 | Calculate $(0.25 \times 600) + \left(40 \div \frac{5}{8}\right)$ (2 marks) | 2 | From the diagram below, find the size of angle x and y . (2 marks)  |
| 3 | A car travels 100km in $1\frac{1}{3}$ hours. Find its average speed. (2 marks) | 4 | Solve: $2x - 4 = 5x - 10$ (2 marks) |
| 5 | Simplify: $1\frac{5}{6} - \frac{7}{12}$ (2 marks) | 6 | Calculate the LCM of 15, 24 and 30 (2 marks) |

7 Simplify: $4a^3b^3 \div 2ab^2$ (2 marks)

8 The sum of two numbers is 48 and their difference is 12. What are the two numbers? (2 marks)

9 Find the size of angle a below (2 marks)



10 What are the missing numbers in the calculation below? (2 marks)

$$\begin{array}{r} 3 \quad \dots 6 \quad \dots \\ - \quad \dots 7 \quad \dots 5 \\ \hline 2 \quad 2 \quad 5 \quad 9 \end{array}$$

11 Arrange these fractions in ascending order $0.54, \frac{2}{3}, \frac{32}{80}$ (2 marks)

12 Write in short form: (2 marks)
 $3(x - 2y) - 2(x + y) + 15y$

13 Calculate the HCD of 20, 50 and 70 (2 marks)

14 Simplify: $\frac{\sqrt{625} + \sqrt{225}}{4}$ (2 marks)

15 Complete the table below: (2 marks)

| | | | |
|-----|-------|-----|-------|
| 10 | 5 | 2 | 1 |
| 0.1 | _____ | 0.5 | _____ |

16 Express the following quantities as a ratio in the lowest terms: 160cm and 5metres. (2 marks)

17 What is the interior angle sum of a 15 sided polygon? (2 marks)

18 Calculate the area of a rectangle whose perimeter is 24cm and width is 2cm shorter than the length. (2 marks)

19 John made a simple interest of 40 000frw in 2 years at interest rate of 5% per year. How much money did John bank? (2 marks)

20 How many triangles are in the rectangle ABCD below? (2 marks)



21 30 eggs weigh 1800g. How many g would 12 eggs weigh? (2 marks)

22 A map is drawn using a scale of 1cm to 5km. What length on the map represents 2km? (2 marks)

23 The selling price of a bicycle is 54 000frw and the profit is 20%. What is the cost price? (2 marks)

24 Find the next two numbers in the following sequence

1, 3, 12, 60, _____, _____ (2 marks)

25 A pen and a pencil cost 150frw altogether. 3 pens and 5 pencils cost 650frw. How much would one pencil cost? (pens are of the same type so are the pencils) (2 marks)

Gatare banks 50 000frw at 8% per year compound interest. What is the interest for two years? (3 marks)

27 Suzan pays 1000frw for 2kg of sugar after a shopkeeper reduces the price by 20% per kg. What is the original price of 1 kg of sugar? (3 marks)

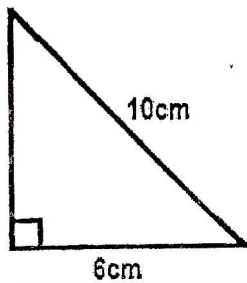
The perimeter of a semi-circle is 36cm. Calculate the area of the semi circle. ($\pi = \frac{22}{7}$) (3 marks)

29 A path of 40m long and 1.2 m wide is to be covered with square tiles of side 20cm. What is the number of tiles needed? (3 marks)

100kg of beans costing 180f/kg are mixed with 200kg of another type costing 150f/kg. What is the cost of 1kg of the mixture? (3 marks)

SECTION B (Choose any 5 questions-35 marks)

31 The figure below is of a right angled triangle. (7 marks)



(a). Calculate it's perimeter

(b). Calculate it's area

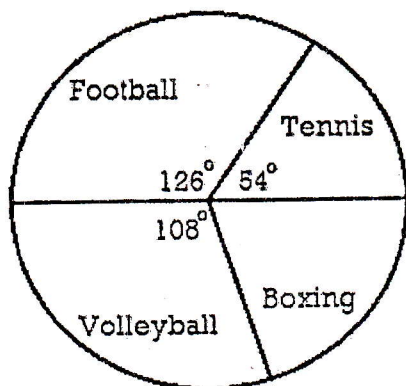
32 (a). Solve: $\frac{x+1}{4} = \frac{x+3}{5}$ (4 marks)

(b). Use the answer from part (a) question and find the value of: $\frac{x^2 - 2x - 14}{x}$ (3 marks)

33 A hollow pipe of length 10m has an inner diameter of 40cm and an outer diameter of 44cm. Calculate the volume of the pipe material. ($\pi = 3.14$) (7 marks)

34 A water tap can fill a tank in 5 hours. A second water tap can fill the tank in 7 hours. How long would the two taps take to fill the tank if they are turned on at the same time? (7 marks)

35 40 students were asked their favourite sports. The Pie chart represents the angles for the various sports. Find the number of students who like each sport. (7 marks)



36

A hotel uses 10kg of rice per day. The cost of rice per kg is 600frw.

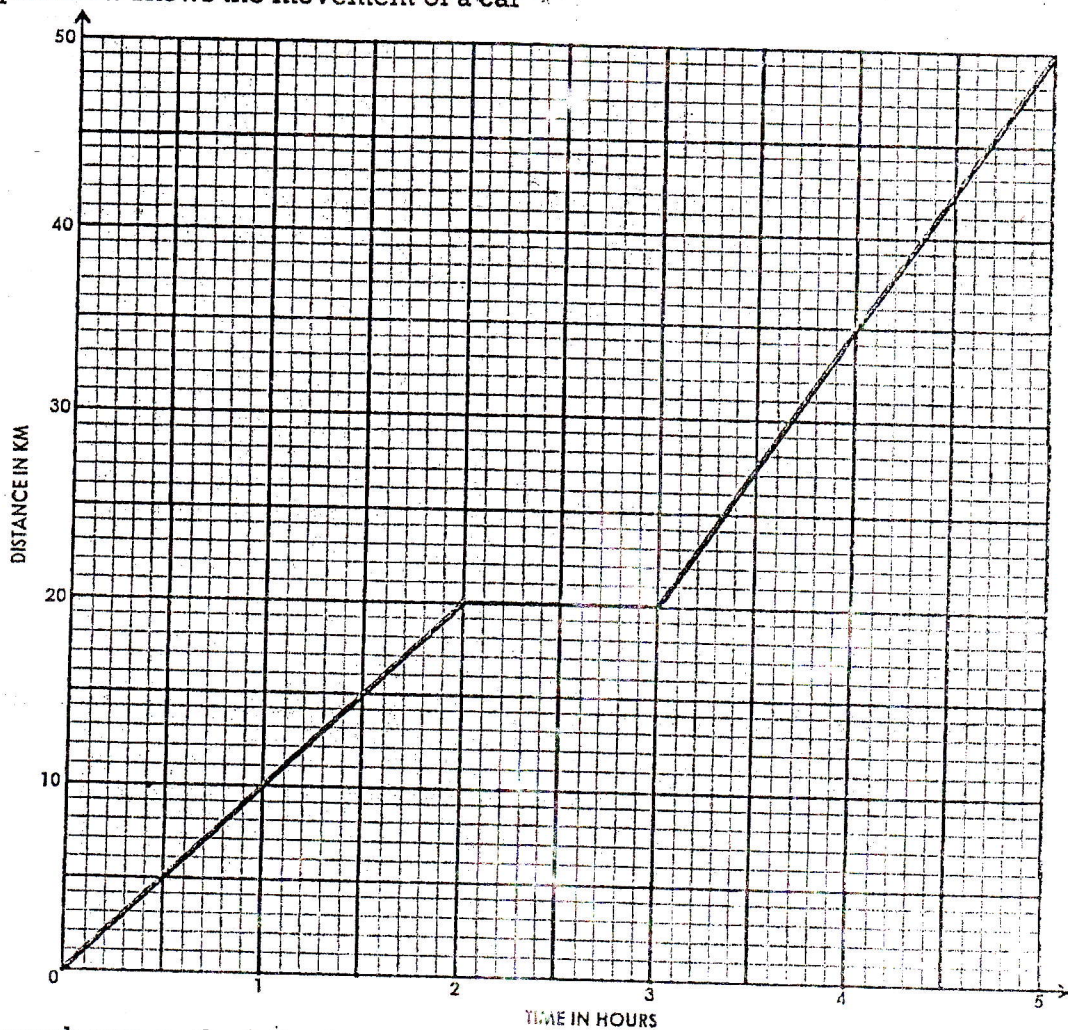
(a). How many kg of rice does the hotel use per week? (2 marks)

(b). How much money does the hotel pay for rice per week? (2 marks)

(c). The hotel budget for rice per week is 50 000frw. What percentage of money is not used per week? (3 marks)

37

The graph below shows the movement of a car



From the graph answer the following questions.

(a). How far has the car travelled in 6 minutes? (1 mark)

(b). What time does the car take to travel 15km? (1 mark)

(c). For how long does the car stop? (1 mark)

(d). Find the average speed of the car. (4 marks)