YEAR 2005

PUPIL'S COMPLETE INDEX NUMBER

Province/City	District	Sector	School	Pupil

PUPIL'S FULL NAME

SUR NAME: _____

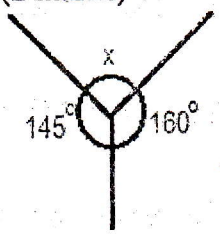
OTHER NAMES: _____

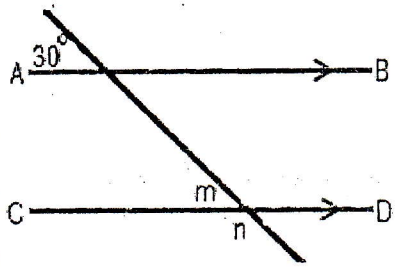
REVISION OF EXTRACTED QUESTIONS FROM PRIMARY LEAVING EXAMINATION 2005

MATHEMATICS

Duration: 2 hours

SECTION A (65 MARKS)

1	Simplify completely: $\left(2\frac{1}{3} \times \frac{9}{14}\right) + \frac{3}{4}$ (2 marks)	2	Solve: $8x - 7 = 2x + 5$ (2 marks)
3	Divide 10 000kg in the ratio 3:7 (2 marks)	4	Calculate the HCF of 45 and 60. (2 marks)
5	Remove the brackets and simplify the following: $4(m - 3n + 3) - 3(m - n + 4)$ (2 marks)	6	Find the value of x in the diagram below (2 marks) 

7	Calculate the area of a triangle whose height is 10cm and base is 6cm. (2 marks)	8	Divide 0.8 ÷ 0.05 (2 marks)
9	Find the simple interest on 240 000frw for 8 months at 5% interest rate per year.(2 marks)	10	Calculate the circumference of a circle whose radius is 5cm. ($\pi = 3.14$) (2 marks)
11	In the figure below, line AB is parallel to line CD. Find the values of m and n. (2 marks) 	12	The volume of a metal is $12cm^3$ and it's weight is 96g. Find the density of the metal. (2 marks)
13	Calculate: $\frac{1}{9}$ *of* 162 + 0.2 *of* 80 (2 marks)	14	The total surface area of a cube is $24cm^2$. Calculate the volume of the cube. (2 marks)
15	A person walks 6km in 50 minutes. Find the speed and express the answer in metres per second. (2 marks)	16	John's salary is increased by 3%. Calculate his new salary if the salary increase is 9000frw. (2 marks)

17 Write the next two numbers in the sequence:

2, 5, 10, 17, 28, _____, _____ (2 marks)

18 A trader pays 60 000frw for a bicycle and then sells it at 75 000frw. Find the percentage profit. (2 marks)

19 Calculate the perimeter of a rhombus whose side is 5cm. (2 marks)

20 The average of 3, 5, 7, 8 and x is 5. Find the value of x (2 marks)

21 A tray of 30 eggs costs 1500frw. Calculate the cost of a dozen eggs. (2 marks)

22 Complete the table below (2 marks)

2	4	5	_____	10
5	9	_____	19	21

23 4 boys eat some food for 9 days. How long does it take 6 boys to finish the same food? (Assume all boys eat equal shares) (2 marks)

24 If $m = 2$, $p = 3$ and $n = -4$, find the value of: $m^2p - 2np$

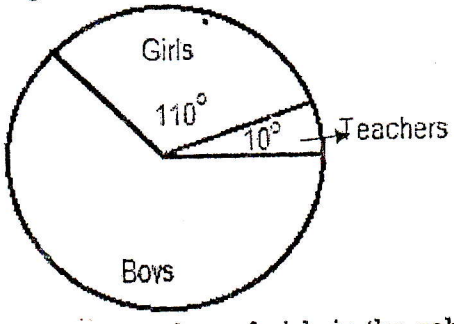
25 The square of a number added to the square of another number the result is 181. Find the two numbers. (2 marks)

26 Arrange the following in descending order:
$\frac{3}{5}, \frac{60}{125}, \frac{39}{75}, 0.56$ (3 marks)

27 Three bells ring at intervals of 4, 6 and 10 minutes respectively. If they are started to ring together, how soon after will they next ring together again? (3 marks)

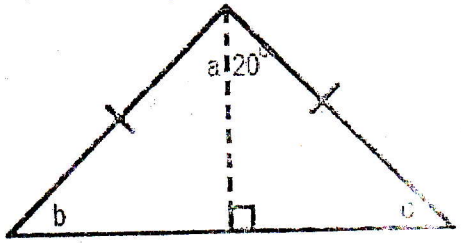
28 40 kg of beans are mixed with maize. The cost of 1 kg of beans is 200frw, 1kg of maize is 120frw and 1kg of the mixture is 160frw. Find the number of kilogram of the maize.(3 marks)

29 The pie chart below represents the number of boys, girls and teachers in a school.



Given that the number of girls in the school is 220, find the number of:
(a). Teachers (1 mark) (b). Boys (1 mark)

30 Below is an isosceles triangle. Find the sizes of angles a, b and c. (3 marks)



SECTION B (Choose any 5 questions-35 marks)

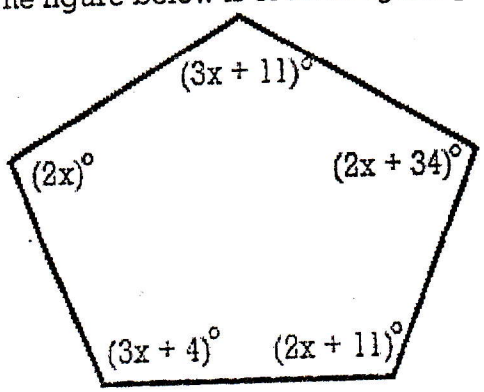
31 The marks of 25 pupils in a test marked out of ten are:

5, 5, 4, 1, 5, 1, 5, 1, 3, 7, 5, 4, 6, 4, 2, 0, 3, 7, 5, 4, 4, 5, 0, 3.

(a). Draw a frequency table using this information. (4 marks)

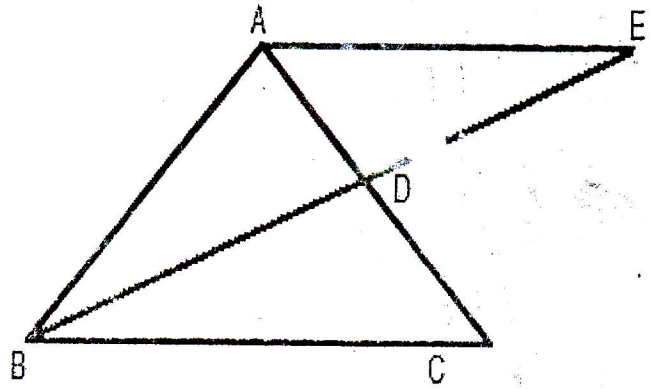
(b). Calculate the average mark. (3 marks)

32 The figure below is of an irregular polygon. Find the size of each angle (7 marks)



33 A trader banks 250 000frw at 9% per year compound interest rate. The interest is calculated every 4 months. Find the amount of money in the bank at the start of the year. (7 marks)

34 In the figure below, triangle ABC is an equilateral triangle, BE bisects angle ABC, AB = 10cm and AD = DE.



(a). Find the size of angles:

(i). ABD (ii). ADB (iii). DAE

(b). How long is line AD?

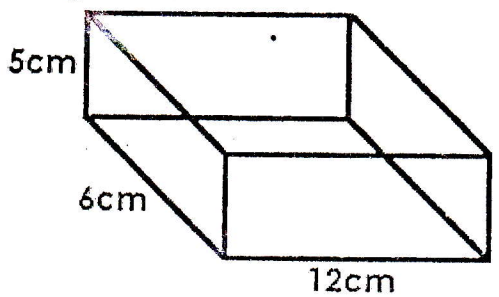
(c). Calculate the area of triangle BCD if BD = 8.7cm. (d). Find the size of angle BAE.

35 A cyclist leaves town A for town B at 8 : 00am and travels at a speed of 15km/hr. 2 hours later, a motorist leaves town A for town B travelling at an average speed of 45km/hr. The motorist follows the same road as the cyclist.

(a). How far from town A does the motorist overtake the cyclist? (5 marks)

(b). At what time does the motorist overtake the cyclist? (2 marks)

36 The figure below is of a model of a cuboid made out of a paper.



(a). Sketch it's net (2 marks)

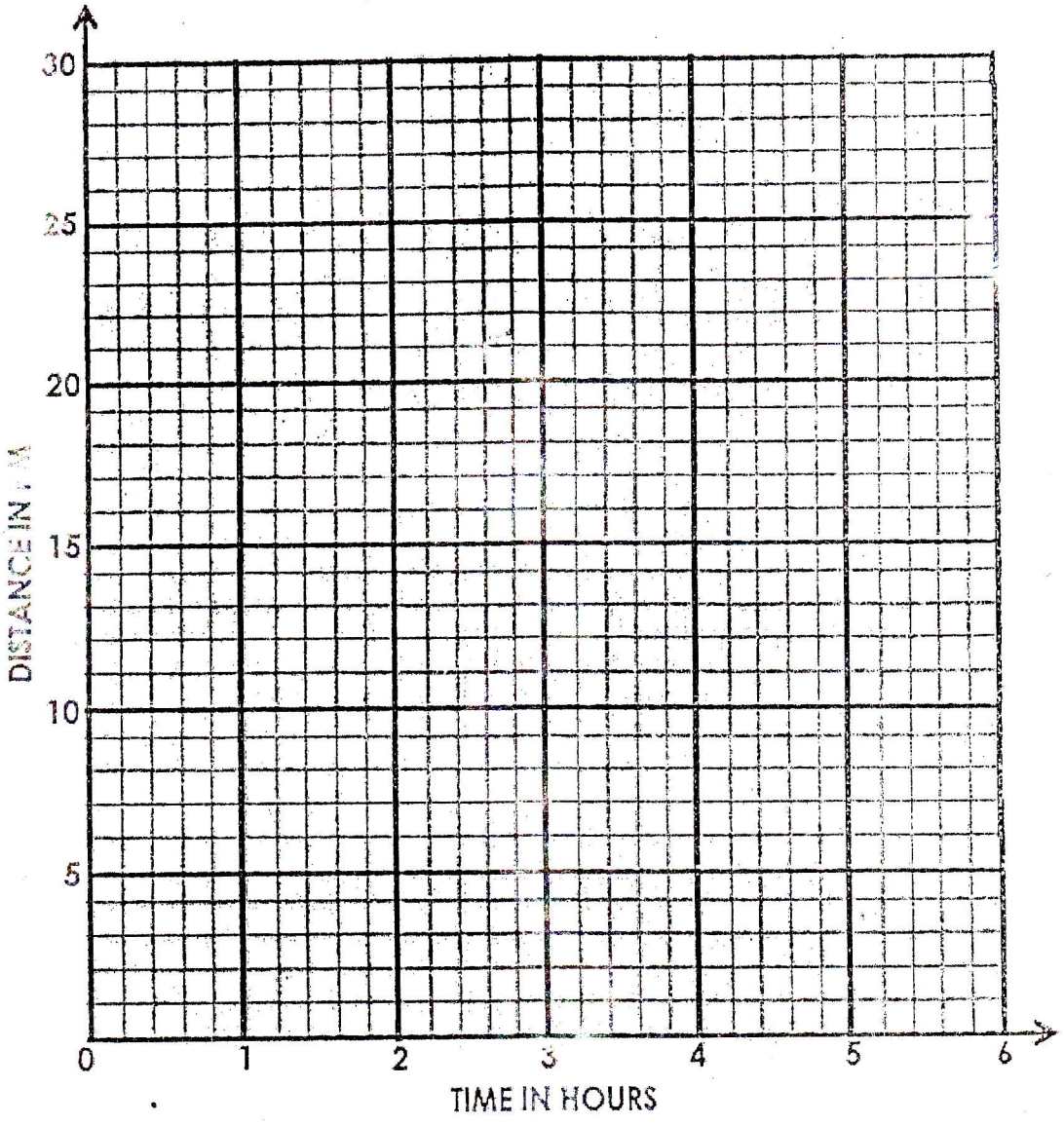
(b) Calculate the total surface area of the cuboid (3 marks)

(c). Calculate the volume of the cuboid (2 marks)

37 The table below shows the time taken and distance covered for a person travelling at a constant speed.

Time(hours)	1	3	5	6
Distance(km)	5	15	25	30

(a). Use the table and draw the graph of this movement. Use the graph paper below. (3 marks)



(b). Find the time taken to cover 23km from the graph. (1 mark)

(c). Find the distance covered in 1 hour 24 minutes.(1 mark)