

# YEAR 2009

## PUPIL'S COMPLETE INDEX NUMBER

Province/City

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District

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Sector

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School

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Pupil

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## PUPIL'S FULL NAME

SUR NAME: \_\_\_\_\_

OTHER NAMES: \_\_\_\_\_

## REVISION OF EXTRACTED QUESTIONS FROM PRIMARY LEAVING EXAMINATION 2009 MATHEMATICS

Duration: 2 hours

### SECTION A (65 MARKS)

1	Calculate $246 + 309 + 254 - 209$ (2 marks)	2	Find one fifth of 300g of sugar (2 marks)
3	Divide 0.04 by 5 (2 marks)	4	Workout $3\text{hrs } 10\text{mins} - 1\text{hr } 40\text{mins} = \dots$ mins. (2 marks)
5	Which of these statements are true; (2 marks) $2 < 5$ , $0 > 1$ , $6 > 4$ , $5 < 1$	6	What is the complement of $27^\circ$ ? (1 mark)  (b). What is the supplement of $135^\circ$ ? (1 mark)

7	In a school hall there are 43 rows each containing 14 chairs. How many people can fit in the hall? (2 marks)	8	Workout : $-159 - (-467)$ (2 marks)
9	Express $\frac{5}{6}$ of 24 as a fraction of 40. (2 marks)	10	What is the sum of the first six prime numbers?(2 marks)
11	Workout $3.2\text{km} + 67\text{dm} + 234\text{cm} = \text{---m}$ (2 marks)	12	Increase 800 in the ratio 11 : 5 (2 marks)
13	Express $\frac{7}{16}$ as a percentage (2 marks)	14	Simplify $x^3y^5 \div x^1y^3$ (2 marks)
15	Sketch a square and draw all the lines of symmetry it has. (2 marks)	16	On a map, a distance of 5cm represents 1.5km. Find the scale of the map (2 marks)



<p>17 Find the circumference of a circle whose radius is 42cm. (<math>\pi = \frac{22}{7}</math>) (2 marks)</p>	<p>18 Solve the following equation (2 marks) <math>3x + 7 = 5x + 13</math></p>
<p>19 The simple interest on a loan of 170000Frw after 9 months is 30600Frw. Find the interest rate per annum. (2 marks)</p>	<p>20 Calculate the area of a triangle with height 6cm and base 8cm (2 marks)</p>
<p>21 The radius of the base of a cylinder is 7cm and it's height is 10cm. Find the volume of the cylinder. (<math>\pi = \frac{22}{7}</math>) (2 marks)</p>	<p>22 Calculate <math>\frac{2}{7} \div \left(\frac{2}{3} + \frac{4}{7}\right)</math> (2 marks)</p>
<p>23 The lights flash at intervals of 4s, 6s and 10s respectively. If they are started together, how soon after will they next flash again together? (2 marks)</p>	<p>24 A square has the same area as a rectangle with sides of 9cm by 16cm. What is the length of the side of the square? (2 marks)</p>

25	The ages of 4 children are 12 years, 13 years, 15 years and $x$ years. Find $x$ if the average age of the 4 children is 12.5 years. (2 marks)	26	The selling price of 8kg of sugar is 4320Frw. Find the cost price if the loss is 10%. (3 marks)
27	The angles of a quadrilateral are $x^\circ$ , $(x + 10)^\circ$ , $2x$ and $3x$ . Find the size of each angle. (3 marks)	28	90000Frw is invested at 12% p.a compound interest. Find the amount after 2 years. (3 marks)
29	100kg of beans costing 200Frw per kilogram is mixed with 80kg of beans costing 245Frw per kilogram. Find the cost of one kilogram of the mixture. (3 marks)	30	Three children share 60 sweets in the ratio of 11 : 10 : 9. How many sweets did each child get? (3 marks)

**SECTION B (Choose any 5 questions-35 marks)**

31 In a school, there are 180 school boys, 160 school girls and 20 teachers. Represent this information on a pie chart. (7 marks)

32 (a). If the mass of a metal is 12g when the volume is  $8\text{cm}^3$ , find the mass of the metal when the volume is  $9\text{cm}^3$ . (4 marks)

(b). If  $p$  varies inversely as  $q$  and  $p = 4$  when  $q = 6$ , find  $p$  when  $q = 8$ . (3 marks)

33 (a). Solve:  $\frac{2x - 4}{3} = \frac{x + 9}{7}$  (4 marks)

(b). Find the value of:  $m^3 - mn^2 + ny^2$ , if  $m = -2$ ,  $n = 3$  and  $y = -5$ . (3 marks)



34 (a). Using a ruler, a pair of compasses and a protractor, construct, accurately, a triangle ABC given lines AB=6cm, BC=7cm and angle ABC=65°. (4 marks)

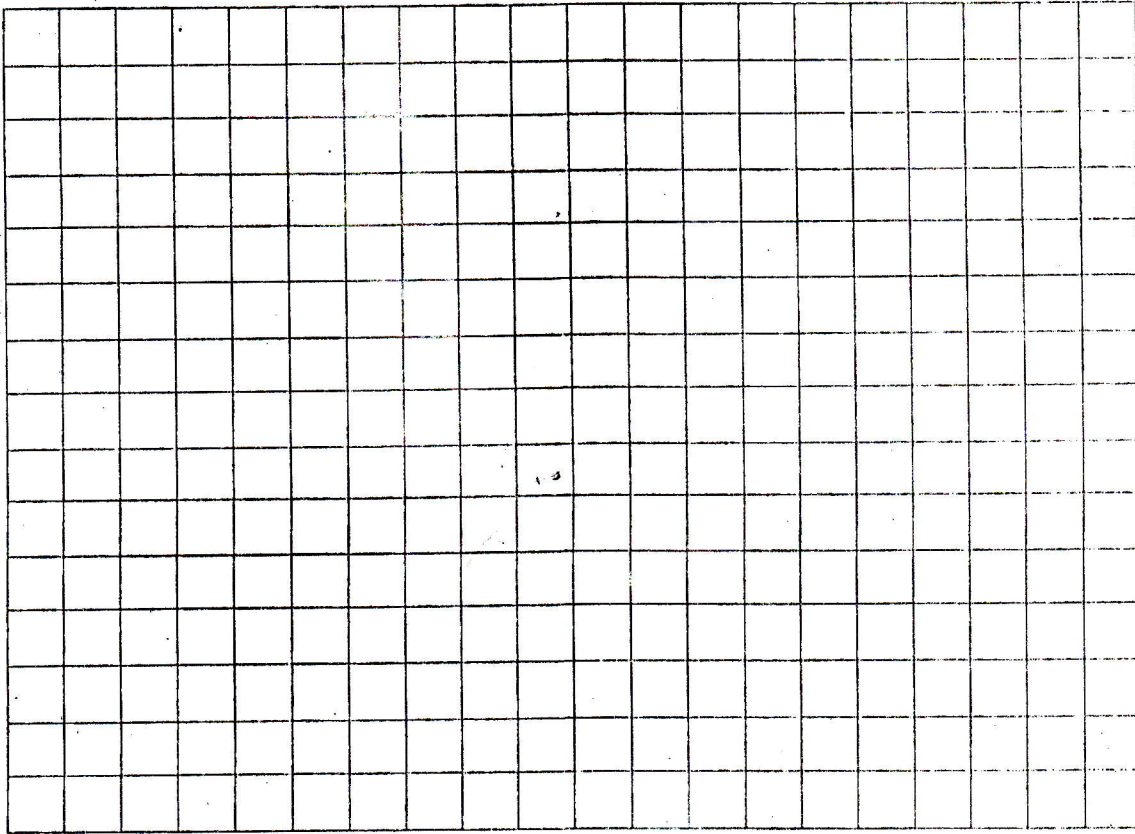
(b). Measure and state

(i). The length of line AC (1 mark) (ii). The angle BAC (1 mark) (iii). The angle ACB (1 mark)

35 Simplify completely:  $\frac{\left(3\frac{1}{2} \times 1\frac{1}{4}\right) \div \left(2\frac{1}{2} - 1\frac{3}{4}\right)}{2.3 \div 4.6}$  (7 marks)

36 Karimba's age is 3 times Rukundo's age. If the total age of Karimba and Rukundo is 20 years, find how many times Karimba will be as old as Rukundo in 5 years time. (7 marks)

- 37 (a). Plot the following points on a graph paper and join them with a line:  $A(0, 2)$ ,  $B(1, 3)$ ,  $C(2, 4)$ ,  $D(3, 4)$  and  $E(3, 0)$ . (3 marks)  
(b). Shade the area under the graph and calculate it. (4 marks)



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