NAME……………………………………………………………………ADM NO…………………………DATE………………………

**KISIRIRI SECONDARY SCHOOL**

**P.O. BOX 93-20500 TEL 0721-451-691**

**END OF 2ND TERM EXAMINATIONS**

**MATHEMATICS FOR FORM TWO**

1. Maina, Koech and Orina share sh 85000 so that for every sh 1 that Maina gets, Koech gets sh3 and for every sh2 that Koech gets, Orina gets sh3. Find how much each each gets. (4mks)

2. Use factor method to evaluate (4mks)

1.90×0.032×0.08

2.0×0.008×0.0038

3. Kisaika left for Ethiopia with ksh 24890.00. She converted the money at the airport to Ethiopian Birr at the rate of ksh1.00=7.72Birr. She spent 64453Birr and returned to Kenya with the balance which she converted back to Kenyan shillings at the rate of ksh1.00= 8.882Birr. How much, to the nearest 10cents did she get on her return? (4mks)

4. Simplify the expression 15a2b-10ab2 (4mks)

3a2-3ab-2ab+2b2

5. Determine the angle subtended by an arc length 11cm at the centre of a circle whose radius is 14cm. (4mks)

6. a) solve for x in 9x+1+32x+1=36 (4mks)

b) Use logarithms to evaluate (4mks)

82.41×76.62

7.389

c) Find the gradient of the line passing through (-1, 4) and (-3,-1). (2mks)

7. (a) Given that a:b=4:5 and b:c 6:7, find a:b:c (3mks)

(b) If a railway corporation charges ksh2000 to carry 36 tonnes of loads for 28 km, how much

would it charge to carry 42 tonnes for 54km? (3mks)

(c) Nineteen men working 7 hours a day re-carpeted a section of a road in 21 days. How many hours a day must 45 men work in order to re-carpet a similar section of the road in 7 days? (4mks)

8. Line AB passes through A(-1,1) and B(2,4).

1. Draw line AB on the grid given below. (3mks)
2. Determine the gradient of the line (2mks)
3. Write the equation of the line AB in the form y=mx+c. (2mks)
4. Line CD is perpendicular to line AB and passes through P(2,2). Determine the equation of the line. (3mks)

9. a) how many lines of symmetry are in the figure below? (1mk)

b) the vertices of a triangle ABC are A(1,6), B(-3,5) and C(-4,1).

(i) Draw the triangle on the grid given above. (3mks)

(ii) On the same grid, draw the image of triangle ABC under a reflection in the mirror line x=2 followed by reflection in line y=x. (4mks)

(iii) write the coordinate of A”B”C” (2mks)

3. the table below is a result of a survey done on a certain field.

|  |  |  |
| --- | --- | --- |
|  | 100 | F |
| E 30  C 20 | 65  50  30  20 | 40 D  25 B |
| A | 0 |  |

1. Sketch the map of the field on the space provided below using the scale of 1:20 (4mks)
2. Find the area of the field in hectares (6mks)

4. (a) using a ruler and a pair of compasses only, construct trapezium ABCD such that AB=6cm and is parallel to CD. CD =3.5cm and is perpendicular to AD which is 3cm. Find the area of the figure (6mks)

(b) Two houses are 750m apart, and one is due north of the other. An observation point is due west of one of the houses and its bearing from the other house is 2280. Find the distance of the observation point from each house. (4mks)