**.GATITU MIXED SECONDARY SCHOOL**

**MATHEMATICS FORM 2 MID TERM 2 2015 EXAM**

1. Evaluate 8+ (-4) × 10 –( -6)

-3 + ( -12) ÷ 3 ×4 3mks

1. The price of a book is changed in the ration 6:5 if the original price was ksh 80.what is the new price? 2mks
2. Solve the following simultaneous equations 3mks

2x + 3y =5

3x + 2y =0

1. Two similar solids gave surface areas 48 cm2 and 108 cm2respectively. Find the volume of the smaller solid if the bigger one has a volume of 162 cm3. 3mks
2. Solve the following pair of simultaneous inequalities and represent this on a number line 3mks

3X -1 > -4

2x + 1 ≤ 7

1. The figure below sows the shape of Kamau’s farm with dimensions shown in meters

140m

20 m

80m

100m

Find the area of Kamau’s farm in hectares (3mks)

1. Simplify 6x2y2 + 13xy-5

3x2y2 – 13xy + 4 ` 3mks

1. A straight line passes through A(-2,1) and B(2,-k). The line is perpendicular to a line 3y + 2x = 5. Determine the value of k. (3mks)
2. Express the recurring decimal below to a fraction 5.72 and leaving your answer in the form

**a/b** where **a** and **b** are whole numbers 3mks

1. Express  as a single fraction (3 marks)
2. Find the value of ***x* 3mks**

2(***x***-3) x 8(***x***+2) = 128

1. Solve the inequalities **4x – 3 ≤ 6x – 1 < 3x + 8**; hence represent your solution on a number line 3mks
2. A minibus covered a distance of 210km at an average speed of 90km/h. If it travelled ⅔ of the distance at a speed of 105 km/h, at what speed did it travel the rest of the distance? (3mks)
3. A piece of land is to be divided into 20 acres or 24 acres or 28 acres for farming and

Leave 7 acres for grazing. Determine the smallest size of such land. 3mks

1. The table below shows the masses to the nearest kg of all the students of marigu-ini secondary. School.

|  |  |
| --- | --- |
| Masses (kg) | No. of students |
| 30-34 | 5 |
| 35-39 | 7 |
| 40-44 | 10 |
| 45-49 | 10 |
| 50-54 | 19 |
| 55-59 | 20 |
| 60-64 | 20 |
| 65-69 | 6 |
| 70-74 | 2 |
| 75-79 | 1 |

1. Complete the frequency distribution table 2mks
2. Determine:
3. Mean 3mks
4. Modal class 1mk
5. Median 3mks