**KAHUHO UHURU HIGH SCHOOL**

**FORM TWO MATHEMATICS**

**TIME:**

**ANSWER ALL QUESTIONS (60 MARKS**

1. Use logarithms to evaluate

0.032 + 0.08 (3 Marks)

0.0016 X 0.25

1. Find the mode and the median of numbers below

23,26,18,15,12,30,15,10 (2 marks)

3.. The figure shows a line PQ. Find the co-ordinates of P. (3 marks)

1. Solve the equation (3 marks)
2. The table below shows the goals scored by a football team in 20 matches. (4 marks)

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| --- | --- | --- | --- | --- | --- | --- |
| Goals | 0 | 1 | 2 | 3 | 4 | 5 |
| No. of matches | s | m | 4 | 3 | n | 1 |

The mean number of goals is 1.6. Find the values of m and n. (4 marks)

1. On the grid below indicate the region described by the inequalities.

Y is greater than 1,

X is less than 4

Y is less than or equals to 3

X + y is greater than 4

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(5 marks)

1. If a = and b =

Find

1. 3a -5b (2 marks)
2. Magnitude of 2a + b (3 marks)
3. Factorize (2 marks)
4. A triangle ABC with vertices A(-1,1), B(1,3) and C(2,1) is translated by vector . Find he coordinates of the vertices of the image. (3 marks)
5. A saloon car and a lorry are moving towards each other at 100km/h and 80km/h respectively. If the distance between them 400m,

Calculate:

1. The time they will take before meeting. (3 marks)
2. The distance covered by the slow vehicle before meeting. (2 marks)
3. A point P is 15km north of Q and R is 26km West of P. Calculate
4. The distance QR (2 marks)
5. The bearing of R FROM Q (3 marks)
6. The radius of a spherical soap bubble increases by 20%. Find correct to 1 decimal place the percentage increase in its volume. (3 marks)
7. In this question use a ruler and a pair of compasses only. Line QR drawn is part of a triangle PQR. If PQ = 8cm and PQ = 9cm, construct the triangle.

Measure angle APR and hence calculate the area of triangle. (2 marks)

1. The frequency table below shows the masses, in kilograms of 30 people.

CLASS FREQUENCY

60 -64 4

65-69 6

70-74 8

75-79 7

80-84 3

85-89 2

1. State the modal class. (1 mark)
2. Estimate the median (4 marks)
3. The diagram below shows a circle centre O. Angle ADO.

Line BC = DC

Calculate

1. Angle AOD (1 Mark)
2. Angle DCB (1 mark)
3. Angle CBO (2 marks)
4. Angle CBO (2 marks)
5. Angle DOB (2 marks)