THE UNITED REPUBLIC OF TANZANIA
THEMI HILL SECONDARY SCHOOL
100 QUESTIONS
BASIC MATHEMATICS FORM I

Write the following numbers in words

1. 10000008
2. 800000010

Write the following numbers in numerals

3. One thousand and fourteen billion
4. Two hundred and sixteen

Write the place value of each digit in the bracket

5. 2020 (0)
6. 983732 (8)

Write each of the following number in expanded form

7. 9098432
8. 100100100
9. 97.85

Write each of the following numbers in short form

10. $(7 \times 100000) + (0 \times 10000) + (6 \times 1000$
11. Write down all even numbers between 21 and 31
12. List all first five odd numbers after 1000

Perform the following operation

13. $999621 + 873 =$
14. $26009 - 14632 =$

Work out each of the following

15. 4466×38
16. $9604 \div 98$

Write down all factors of the following numbers

17. 500
18. 256

Express the following numbers as the product of its prime factors

19. 90
20. 18

Find the **Greatest Common Factors (GCF)** of the following numbers

21. 12 and 16 and 20
22. 4 and 7

Find the **lowest Common Multiple (LCM)** of the following numbers

23. 12, 42 and 72
24. 42, 45 and 50

Find the **GCF** and **LCM** of the following numbers by prime factorization

25. 6, 9, 15
26. 12, 16, 20

State which of the following numbers are Proper, Improper and Mixed Fractions

27. $\frac{2}{3}$
28. $\frac{4}{3}$
29. $1\frac{1}{2}$

Express each of the following as a mixed fraction

30. $\frac{25}{11}$
31. $\frac{9}{4}$

Convert each of the following into improper fraction

32. $15\frac{11}{12}$
33. $3\frac{3}{4}$

Give three equivalent fractions to

34. $\frac{7}{8}$

35. $\frac{4}{7}$

Arrange the following fractions in ascending order

36. $\frac{2}{5}, \frac{17}{20}, \frac{3}{8}, \frac{9}{10}$

37. $\frac{9}{16}, \frac{7}{8}, \frac{21}{32}$

Work out the following

38. $\frac{7}{20} + \frac{3}{10} + \frac{1}{5}$

39. $3\frac{5}{7} - \frac{6}{7}$

For Each Of The Following Number Below State The Place Value Of Digit 5

40. 0.0567

41. 132.34435

Write Each Of The Following Decimals In Expanded Form

42. 343.9

43. 998.29023

Express Each Of The Following As Decimals And State Whether They Are Terminating, Recurring Or Non Terminating And Non-Recurring

44. $\frac{13}{50}$

45. $\frac{7}{12}$

46. $\frac{8}{3}$

Write each of the following in long form

47. $0.\dot{7}$

48. $0.\dot{2}3\dot{1}$

Express Each Of The Following Decimals As A Fraction In Their Lowest Terms

49. 4.102

50. 0.625

Convert Each Of The Following Decimals To Fractions

51. $0.3\dot{2}1\dot{5}$

52. $0.\dot{8}\dot{1}$

Evaluate Each Of The Following

53. 1.25 +4.358

54. 342.9833 – 23.3422

55. 2.71 × 0.144

56. 12.3 ÷ 100

57. 24.2 – (6.95 + 3.78)

Rewrite each of the following as percentage

58. $2\frac{3}{4}$

59. 5.75

Convert each of the following to fractions and decimals

60. 15%

61. $45\frac{3}{4}\%$

Round off the following correct to the required decimal place

62. 0.002752 (4 decimal places)

63. 20.04416 (2 decimal places)

64. 0.17244 (3 decimal places)

65. 6.0097 (3 decimal places)

66. 2.14678 (1 decimal places)

67. Write 86.463 correct to
    a) 1 decimal places
    b) 2 decimal places
    c) 1 significant figures
    d) 2 significant figures

68. Write 0.00607049 correct to
    a) 3 decimal places
    b) 4 decimal places
    c) 5 decimal places
    d) 6 decimal places

69. Round off to hundredth each of the following number
    a) 8.648
    b) 31.7842
    c) 0.453

70. From the 1967 Tanzania mainland census, there were 5267910 children under the age of fifteen. Round off this number to
    a) Millions
    b) Thousands
    c) Hundreds

71. Evaluate each of the following and give your answer correct to 2 decimal places
    a) 9.0017×0.0987
    b) $8.51 \div 0.472$

Estimate or approximate the value of each of the following

72. 43×28

73. $2912 \div 32$

Simplify the following and give your answer correct to the required number of significant figure

74. 0.83×0.737

75. 5.178×20

76. 7.351×4.83

Explain the following terms as used in Geometry

77. A point
78. Line Segment
79. Ray
80. Straight line
81. Angle

Describe the following types of angles with the aid of diagram

82. An acute angle
83. Right angle
84. Obtuse angle
85. Straight angle
86. Reflex angle
87. Complementary angle
88. Supplementary angle

Use your protractor to draw the following angles accurately

89. 45^0
90. 82^0
91. Define the term polygon
92. Differentiate the term regular polygon and irregular polygon
93. Explain about the following polygon
    i. Triangle
    ii. Quadrilateral
    iii. Circle
94. The sum of the interior angles of a regular polygon is 1980^0. How many sides does the polygon have.
95. Calculate the size of each angle of a regular pentagon
96. The sum of the 7 angles of a nonagon is 1000^0. If the remaining angles are equal, find the size of each remaining angles.
97. Find the number of sides of the polygons that have the following sum of interior angle

    (a) 3240^0 (b) 2340^0

98. If the size of each exterior angle of a regular polygon is 30^0. What is the size of each interior angle?
99. The interior angle of a regular polygon is 144 greater than the exterior angle. How many sides does the polygon have
100.