***NIGAT KOKEB P.P, PRIMERY AND MIDDLE SCHOOL***

**10th**

**MATHEMATICS WORKSHEET FOR GRADE 8TH YEAR2017 E.C.(UNIT 1-GRADE *UNIT 1-3)***

**INSTRUCTION- I. CHOOSES THE CORRECT ANSWERS FROM THE GIVEN ALTERNATIVES**

1. Which one of the following is **FALSE**?
2. Q = $Q^{+}∪$ {0} $∪Q^{-}$
3. Z = Z+$∪${0}$∪$ Z-
4. Z+ $⊂$ Q
5. Z = $Q^{+}∪${0} $∪Q^{-}$
6. The simplified form of$\left|-8-3\right|$ **– 10**$\left|6-11\right|$is
7. 39
8. -39
9. -45
10. -61
11. Which of the following lists of numbers is written in an **increasing order**?
12. A**.** $\frac{1}{5}$**,**$ \frac{2}{3}$**,** $\frac{3}{2} , 1\frac{3}{4}$
13. $\frac{2}{3}$**,** $\frac{1}{5}$**,** $\frac{3}{ 2} , 1\frac{3}{4}$
14. $\frac{1}{5}$**,** $ \frac{2}{3}$**,**$ 1\frac{3}{4}$ **,** $\frac{3}{ 2}$
15. **.**$\frac{1}{5}$**,**$ 1\frac{3}{4}$**,**$ \frac{2}{3}$**,** $\frac{ 3}{ 2}$
16. Which expression has a value of -2?
17. $\left|2\right|+\left|-4\right|$
18. $\left|4\right|-\left|2\right|$
19. $\left|-2\right|-\left|-4\right|$
20. $\left|-4\right|+\left|2\right|$
21. Which one of the following is **NOT** True?
22. $2\frac{3}{4}<3\frac{2}{7}$
23. $0.93 <\frac{3}{4}$
24. $\left|\frac{3}{2}\right|>\frac{-2}{3}$
25. $\frac{7}{2}>\frac{8}{9}$
26. Which one of the following is **CORRECT** about rational numbers?
27. The sum of two positive numbers is less than the sum of two negative numbers
28. B. The quotient of two negative numbers is a negative numbers
29. The sum of two opposite numbers is zero.
30. The product of two opposite numbers is one.
31. What is the value of $1\frac{1}{2}+2\frac{1}{3}+3\frac{1}{4}$?
32. $\frac{87}{12}$
33. $\frac{85}{12} $
34. $\frac{89}{12} $
35. $\frac{83}{12}$
36. The simplified form of$\left(\frac{-24}{5}× \frac{15}{16}\right)$**÷** $\left(\frac{6}{4} × \frac{-12}{8}\right)$is .
37. $2$
38. $3$
39. $-2$
40. $\frac{-36}{40}$
41. The solution set of the absolute equation **6 -5**$\left|x-6\right|$ **= -4** is
42. { }
43. {-8, 8}
44. {4, 8}
45. {4, 6}
46. How long will take **Birr 300** to **double** itself if it is invested at the rate of **5%** simple interest per annum?
47. 10 years B. 15 Years C. 20 years D. 40 years
48. If birr 2500 is invested at 12% simple interest per annum, then what is the interest earned after two years?

 A. Birr 432 B. Birr 600 C. Birr 500 D. Birr 450

1. For what value of $ a $does the equation $\left|x\right|=a$ have two solutions?

A. $a<0$ B. $a>0$ C. $a=0 D. a\ne 0$

1. If **Birr**$200$ is divided among $A, B $and $C$ in the ratio $2∶3∶5 $respectively, what is the amount of$ B's$ share in Birr?
2. $40$
3. $60$
4. $100 $
5. $150$
6. **(0.07)2**is equal to \_\_\_\_\_
7. 0.049
8. 0.49
9. 0.0049
10. 4.9
11. Which one of the following numbers is **both** perfect square and perfect cube?
12. 8
13. 64
14. 36
15. 16
16. If $\sqrt{13.89 }$ **= 3.7269**, then find $\sqrt{1389}$ **= \_\_\_\_\_\_\_.**
17. 37.269
18. 3726.9
19. 372.69
20. 0.37269
21. Which one of the following is **TRUE**?
22. $\sqrt{0.9}=0.3$
23. $\sqrt{0.4}=0.2$
24. $\sqrt{0.16}=0.04$
25. $\sqrt{0.81}=0.9$
26. Which one of the following is **perfect cube**?
27. $0.0001$
28. $0.01$
29. $-0.0001$
30. $-0.001$
31. If x = -0.3, then what is the value of x3?
32. $\frac{-27}{1000}$
33. $\frac{9}{100}$
34. $\frac{-9}{100}$
35. $\frac{-3}{10}$
36. If $\sqrt[3]{7.415}$ **= 1.95**, then what is the value of $\sqrt[3]{7415}$
37. 0.195
38. 195
39. 19.5
40. 1950
41. The simplified form of $\sqrt[3]{3\frac{3}{8}} is$ **\_\_\_\_\_?**
42. $\frac{3}{2}$
43. $\frac{1}{3}$
44. $\frac{2}{3}$
45. $\frac{3}{4}$
46. The expression$\sqrt[2]{\sqrt{343}×\sqrt{28}}$is equal to;
47. $14$
48. $7\sqrt{2}$
49. $\sqrt{14}$
50. $7$
51. Which square root lies between the number 12 and 13?
52. $\sqrt{144}$
53. $\sqrt{170}$
54. $\sqrt{156}$
55. $\sqrt{139}$
56. Which one of the following number is **neither** a perfect square **nor** a perfect cube?
57. $49$
58. $64$
59. 121
60. $–6$
61. The **volume** of cubic box with side length equal to $\frac{1}{2}$ **m** is
62. 4m3
63. $\frac{1}{8}$ m3
64. $\frac{1}{4}$ m3
65. 8m3
66. The **area** of a square is **196 cm2**. What is the length of each side?
67. 11cm
68. 14 cm
69. 13cm
70. 15cm
71. A rational number is **m** called a perfect cube, if and only if, for some **n**$\in $**Q, m** is equal to:
72. $3n$
73. $\sqrt[3]{n}$
74. $\sqrt{n} $
75. $n^{3}$
76. What is the solution set of the equation$ 2\left( 3x - 6 \right)= 5x $ ?
77. {12 }
78. { 8 }
79. { 6 }
80. { 5 }
81. If $x$ is a whole number and$ 3x - 5 \geq 13$, then what is the lowest value of$ x $which satisfy this inequality?
82. 7
83. 9
84. 8
85. 6
86. What is the solution set of$ 3x-5\leq 4 ; x \in N$?
87. {...,1,2,3}
88. {1,2,3}
89. {1, 2, 3,...}
90. {0,1,2,3}
91. What is the solution set of the equation$ x –1=\frac{2x - 3}{4}$?
92. {-2}
93. {$\frac{1}{2}$}
94. {2}
95. {$\frac{-1}{2}$}
96. On Cartesian coordinate system, in which quadrant does the point $(-6 , - 8 )$ lie?
97. Quadrant III
98. Quadrant IV
99. Quadrant I
100. Quadrant II
101. The point **(3, 4)** is lie on the line$4x – by = -20$, and then what is the value of **b**?
102. 6
103. 8
104. 7
105. 9
106. What is the equation of a line that passes through the point **P (4, -3)** and has a slope **-2**?
107. $y =\frac{1}{3}x+3$
108. $y=-2x+5$
109. $3y – x + 9=0$
110. $3y – x+15=0$
111. Four years ago the sum of the ages of a man and his son was **40** years. Now the man is **22** years older than his son. What is the present age of his son?
112. 9
113. 14
114. 13
115. 15
116. **A** can do a job in **9 days**, and **B** can do the same job in **18 days**. How long will it take them if they work together?
117. 7 days
118. 8 days
119. 6 days
120. 4 days
121. Temperature ***F=***$\frac{9}{5}$ ***C+32***. At what temperature have the Fahrenheit and Celsius readings the **same value**?
122. -40
123. 40
124. 20
125. -20
126. Which one of the following line is a **horizontal line**?
127. X=4
128. x+3y=10
129. y=2
130. x-y=0
131. What is the solution set of the inequality $\frac{x+1}{2}+\frac{x+2}{3}>16-\frac{x+3}{4}$ in the set of rational numbers?
132. $\left\{x\in Q,:x>13\right\}$
133. $\left\{x\in Q,:x<13\right\}$
134. $\left\{x\in Q,:x>\frac{187}{13}\right\}$
135. $\left\{x\in Q,:x<\frac{187}{10}\right\}$
136. If line in the coordinate plane passes through the **first** and the **third** quadrants then the **sign** of its **slope** is?
137. Positive
138. Zero
139. Negative
140. undefined

 *Prepared by: Mathematics Department*