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 **WORKSHEET**

 **MATHEMATICS**

 **GRADE-VII Date: 4.11.19**

**1) Represent the following rational numbers on the number line:**
a)-3/4     b) 31/-6     c) -1/2    d) ¾

**2) Write the following rational numbers in the standard form:**
a) 5/15     b) -24/40     c) 33/-77    d) -45/-105

**3) Compare the following rational numbers:**
1) -9/27, 6/-18     2) -5/7, 10/-6
3) 3/-8, -15/40     4) -11/7, 33/21

**4) Arrange the following rational numbers in the descending order:**
1) 2/-3, -4/9, -5/12, 7/-18
2) 3/-4, -5/12, -7/16, 9/-24

**5) Arrange the following rational numbers in the ascending order:**
1) 2/5, 1/3, 3/4, 1/6     2) 5/6, 7/8, 11/12, 3/10

**6) Fill in the blanks by the correct symbol >, = or < :**
1) | 3/4| ---------| ½|    2) |-1/2| ----- | -3/4 |

**7) Add:**1) 3/7 and -9/7,    2) 5/9 and 7/-9
3) 2/5, 5/-9 and -6/15

**8) Simplify:** 1) -2 + ( 3 / 8 ) + ( - 1 / 5 ) , 2) (2/3) + ( -7/11) + (-1/4 )

**9) Verify that a + b = b + a**by taking (1) a = -7/5, b = 2/7
(2) a = -1 , b = -2/3

**10) Verify that (a+b)+c.=a+(b+c)** by taking
(1) a = -2 , b = -2/3 , c = -3/4
(2) a = -12, b = -9/11, c = 7/-12

**11) Simplify the following:**
1) (2/3) + (-4/5) + I + (-2/3) + (-11/5)
2)(5/8) + (-8/9) + 0 + (-13/3) + (17/24)

**12) Subtract :**1) (-3/4) from (1/2)    2) (5/8) from (-3/14)

**13) What should be added to (-7/20) to get (-2/5)?**

**14) The sum of two rational numbers is (-3/7). If one of the number is (-5/8) find the other.**

**15) The sum of two rational numbers is (-5/8). If one of the number is (-6/11), find the other number.**

**16) To which number should (2/3) be added to give (-11/4)?**

**17) From which number should (-11/4) be subtracted to give (-11/4)?**

**18) Find the product of :**
1) 5/9, -2/5     2) -5, -3/15

**19) Multiply, and give the product in the standard form:**
1) -6/25 by 50/24     2) 3/11 by 22
3) 21/5 by -15/21     4) -36 by -5/9

**20) Verify the property a x b = b x a by taking :**
1) a = (-12/7), b = (-21/5)    2) a = 0 , b = (-13/3)

**21) Verify the property a x ( b x c ) = (a x b) x c by taking**
1) a = (7/5), b = (-9/4), c = (1/2)
2) a = 1, b = (-13/5), c = (3/5)

**22) Verify the property ax(b+c)=(axb)+(axc) by taking:**
1) a = (1/3), b = 0, c = (-7/6)
2) a = -2, b = (9/5), c = (-2/15)

**23) Verify ( x x y )-1 = x-1 x y-1**
1) x = 1/2, y = 1/3     2) x = -3/4 y=-1/8

**24) Verify that | x + y | ≤ | x| + | y |**by taking x= 13/4 and y= 3/2

**25) Verify that | x + y | = | x| + | y |**by taking x = 1/2 and y = -1/4

**26) The product of two rational numbers is 6. If one of them is 8, find the other number.**

**27) By what number should (-6/11) be multiplied to get (-32/11)?**

**28) Find the rational number between:**
1) 3 and 4     2) -7 and -6

**29) Find three rational numbers between:**
1) -5 and 8     2) ( -1/3 ) and (1/2)

**30) State whether true or false:**
1) Absolute value of a rational number is either positive or 0.
2) There are countless rational numbers with absolute value less than 5.
3) The absolute value of 0 is 0.