 

**C.B.S.E. No. 1030429**

 **WORKSHEET III–MATHEMATICS 2017-18**

 **CLASS – VII**

1. What are integers?
2. Write the predecessors as well as the successors of the following numbers: 56, -21, - 804, - 789.
3. Add a) 76 & -76 b) -52 & 137.
4. Arrange the following in ascending order: -16, -53, 40, -83, 28, 65, 19, 81,-25.
5. Arrange the following in descending order: -98, 63, 96, -25, 21, 74, -48, 90, -62, 24.
6. Find the products: a) 86 x 0 b) -79 x 1 c) -125 x 7 x - 8
7. The sum of 2 integers is 65. If one of them is -31, find the other.
8. Fill in the blanks & name the property used: a) 40 + 89 = \_\_\_\_ + 40 b) 78 x [ 20 + (-5)] = 78 x\_\_ + 78 x (-5) c) [ 32 x 35 ] x ( -8) = 32 x [ \_\_\_\_\_ x -8]
9. Verify and also name the property used. a) -52 x 13 = 13 x -52 b) [ 26 + ( -15 )] + 24 = 26 + [ - 15 + 24 ]

10. Find a) 28$÷( -4)$ b) 0 $÷$ 25 c) [-55 + ( -100)$÷$[ -200+ 45] d) [ 80 $÷$ ( -5 ) ] $÷ $ [ ( -64 ) $÷$ ( - 4)]

11. Find the value of the following using suitable property. a) 3246 x 99 – ( 246 x 99) b)(-54 ) x 102

12. Start with integer -84, add -16 to it. Subtract 20 from the result. Divide the result by 30 & multiply the answer by -12. What do you get?

13. Find ( -4 ) x ( -5 ) x (-8 ) x 10

1. A regular hexagon has each side of 5.2 cm. Find its perimeter.
2. Simplify : a) 1/3 –3 / 4 + 5/12 b) 2 $\frac{5}{6}$ – 7$ \frac{1}{4}$ - 6 $\frac{1}{5}$ c) $\frac{1}{26} ×\frac{5}{12} × \frac{13}{30} $ d) $\frac{2}{7}$ of 140 g e) 3$\frac{5}{6} ×4\frac{3}{4}+ 5\frac{5}{6} ×2\frac{3}{4}$ f) 18 $÷\frac{3}{4}$ g) 4$\frac{1}{24} ×5\frac{1}{4} ÷1\frac{1}{4}$ h) 2$\frac{4}{5} ÷3\frac{1}{5}$ i) 5 $\frac{1}{8} ÷2\frac{1}{5} ×6\frac{1}{4}$

16. Simplify: i) $\frac{1}{5}$ - ( $\frac{4}{5}$ of $\frac{5}{6}$ ) + $\frac{3}{4}$ ii) 108 $÷$ 36 of $\frac{1}{3}+\frac{2}{5} ×3\frac{3}{4}$

17. What should be added to 15$\frac{2}{3}$ to get 18$\frac{5}{6} $ ?

18. Arrange the following fractions in ascending order: 4/5, 7/10, 11/15, 17/20

19. Apples are sold at Rs. 18$\frac{2}{5}$ per kg. What is the cost of 3$\frac{3}{4}$ kg of apples?

20.Find the area of a square field of side 4$\frac{2}{3}$ cm.

21. By what number should 9$\frac{4}{5}$ multiplied to get42?

22. Write the additive inverse & multiplicative inverse of ¾.

23. Express 5 cm in m and km.

24. Arrange the following decimals in ascending order:2.6, 2.26, 2.06, 2.007, 2.3

25. What should be added to 63.28 to get 98.64$ $ ?

26. Find the product 0.47 x 5.3x 0.06

27. . Simplify : a) 4. 05 + 2.63 – 1.14 b) 8.62 x 100 c) 9.5 x 40 d) 8.5 $÷ $100

28. The cost of 24toys is Rs. 783.60. Find the cost of each toy.

29. Express --3/8 as a rational number with a) numerator = -24 b) denominator = -56.

1. Represent the following on the number line: a) 3/4 b) -5$ \frac{3}{5}$ c) 23/8
2. Arrange in ascending order: 1/4, 3/8, 7/12.
3. Arrange in descending order: -2/15, -11/30, -7/20.
4. Evaluate : a) $\frac{-16}{9}+ \frac{-5}{-12}+ \frac{7}{18}$ b) $\frac{-7}{10}+ \frac{13}{-15}+ \frac{27}{20}$
5. The sum of 2 rational numbers is -5. If one of the number is 13/6, find the other.
6. What number should be subtracted from -4/9, so as to get -7/8?
7. Write the standard form of the following: a) $\frac{-35}{49}$ b) $\frac{68}{119}$ c) $\frac{-27}{36}$ d)$ \frac{299}{-161}$ e)$\frac{-87}{116}$
8. Simplify: a) $\frac{-3}{3} ×\frac{39}{7} ×\frac{-42}{26}$ b) $\frac{15}{18}×\left( -6 \right)+ \frac{-4}{9} × \frac{-3}{16}$
9. Multiply a) $\frac{14}{9} $by$ \frac{-36}{7}$ b) $\frac{39}{4}$ by $\frac{-8}{13}$
10. Divide a) $\frac{4}{9}$ by $\frac{-5}{12}$ b) $\frac{16}{35}$ by $\frac{15}{14}$
11. The product of 2 rational numbers is -16/9. If one of the numbers is -4/3, find the other.
12. The cost of 2½ m of cloth is Rs. 78¾. Find the cost of cloth per meter.
13. Define a triangle. What are its various types?
14. What is angle sum property of a triangle?
15. In each case find the third angle of the triangle, a) 700, 800 b) 300, 1100 c) 1500, 100
16. What is exterior angle property of a triangle?
17. Find the lettered angles in the triangles. A

 X 500

 x

 x

1100 500 500 700  B

1. State Pythagoras theorem. Find the hypotenuse for each triangle. A) 12cm, 16cm b) 15cm, 20cm
2. A tree is broken at a height of 9m from the ground and its top touches the ground at a distance of 12m from the base of the tree. Find the original height of the tree.
3. Are the following triangles possible? A)12 cm, 7 cm, 19 cm b) 17 cm, 13 cm,1 8 cm
4. Draw the lines of symmetry & order of rotational symmetry for the following figures

1. How many lines of symmetry do the following have- Square, an equilateral triangle, rhombus?
2. Write down the centre of rotation, order of rotation & angle of rotation for a) square b) rectangle c) equilateral triangle d) regular hexagon.
3. Draw the following figures & their nets: triangular prism, cube, cuboid, square pyramid, rectangular pyramid, triangular pyramid. Write down their number of faces, vertices, edges E derive Euler’s formula.

55. Express in power notation: a) 25 b) -16 c) -343 d) 81/121

1. Write down all the laws of exponents and powers.

57. Simplify: a) [ 3/5 ] 10$÷[$ 3/5 ]6 b) ( 450 +890 ) x 230  c) ( -2 x 53)2

58. Find the value of x in x3 = 216.

59. Rename a) 87612 b) 271832 in expanded form using exponents.

60. Find the complement & supplement of 360.

61. Write in scientific notation: a) 87,000 b) 983758 c) 2918000 d) 1286000000 e) 3750000

62. If 9x 3n = 36, find the value of n.

63. What are various types of angles? Define linear pair. What are adjacent angles?

64.AC is a line . Find the values of < ABD & <CBD.

 D

 8x 2x

 A B C

65. a) Two angles are supplementary & the smaller is 400 less than the larger. Find the angles.

 b)The angles of a triangle are in the ratio of 4 : 5 : 9. Find the measure of each angle of the triangle.

66. In the following figure find the values of a, b, c.

 P Q

 1100

 a b

 c S

R

67. Define parallel lines, transversal, angles made by the transversal.

68. Find the values of lettered angles in the following figures. Find the values of the angles in the triangle & the parallel lines.

 a

 y 600 a b

 x 500 500