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| **logo** | **INDIA INTERNATIONAL SCHOOL-MANGAF**  **HOLIDAY ASSIGNMENT 2018-2019**  **CLASS-VIII MATHEMATICS** |

**CHAPTERS: i) SQUARES AND SQUARE ROOTS ii) CUBES AND CUBE ROOTS**

1) Without adding find the sum of: a) 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17.

b) 1+3+5+7+9+11

2) Find the square root of: a) 1764; b) 2304 (by prime factorization)

3) Find the square root of a) 390625 b) 7744 c) 16.81 d) 3 (by long division method).

4) The area of a square plot is 4489 m2. Find the side of the square plot.

5) Find the greatest 4-digit number which is a perfect square.

6) Find the smallest number by which 1100 must be multiplied so that the product becomes a perfect square. Also, find the square root of the perfect square.

7) What is the least number added to 4321 to make it perfect square?

8) Find the least number of six digits, which is a perfect square

9) What least number must be subtracted from 7250 to get a perfect square? Also, find the square root of this perfect square

10) Find the least square number which is exactly divisible by each of the numbers 8,12,15 and 20

11) Using prime factorization method, find which of the following are perfect squares?

a) 576 b) 1176 c) 9075 d) 5625

12) Express 81 and 49 as sum of odd numbers

13) Write a Pythagorean triplet whose smallest member is a) 6 b) 14

14) Evaluate: a) (37 – 36)2 b) (92 – 91)2

15) Find the square root of following decimals: a) 33.64 b) 9.8596

16) Evaluate : a) (8)3 b) (60)3 c) (0.6) 3 d) (0.05) 3

17) Which of the following numbers are perfect cubes?.In case of perfect cube, find the number whose cube is the given number a)243 b) 343 c)8000 d) 9261

18) Find the smallest number by which 1323 must be multiplied so that the product is a perfect cube.

19) Find the smallest number by which 8788 must be divided so that the quotient is a perfect cube.

20) Find the cube root of the following numbers by prime factorization a)1728 b)4096 c)3375 d)2744

**EXPONENTS AND POWERS**

1. Simplify the following

(i) [3-1 X 4-1]2 (ii) [3-1 X 5-1]3 (iii) [2-1 X 3-1]1 (iv) [3-1 X 4-1 ]-1 X 5-1

2. Find the value of *x* so that 72*x*+1 ÷ 49 =73

3. Find the value of (5)-3, (-8)2, (3/2)-5

4. Simplify and write the answer in exponential form

(i) ( )-5 X 4-5 X ( )-5 (ii) X 4-3

5. Show that ( X ) -8 = ( X )8

6. Find the value of 50 , 36 ÷ 36, ( ) 3 – 4 + 1 , (3) 3 x 5 – 6 -9

7. Find the reciprocal of the rational number () -2 ÷ () -3

8. Write the following number in the standard form

(i) 4340000 (ii) 0.4579 (iii) 0.0000000033

9. Write the numbers in usual form

(i) 3.49 X 104  (ii) 9.34 x 10-10 (iii) 2.88 x 102

10. If x= () -2 ÷ () 2, find the value of x-1

11. Find the value of

(i) 80 + 70 + 90 (ii) 100 x 80 x 40 (iii) ( 90 20) X ( 40 + 40 )

12. Find m so that ( ) 3 x ( ) 6 = ( ) 2m-1