THE VILLAGE
INTERNATIONAL SCHOOL
"We Nurture Dreams"

GRADE -8 **Work sheet** **MATHEMATICS**

CH-8 – Squares and Square roots

Name:..... **Date:.....**

MC Q :

1. Which of the following is a perfect square?
A. 1057 B. 625 C. 7928 D. 64000

Q2. Which of the following will have 6 at unit place?
A. 19^2 B. 11^2 C. 24^2 D. 13^2

Q3. If 5278 is squared, then what will be at unit place?

A. 8 B. 7 C. 6 D. 4

4. What will be the number of zeros in square of 400?

A. 2 B. 3 C. 4 D.6

5. How many natural numbers lie between 92 and 102?

A. 17 B. 18 C. 19 D. 20

6. What is the sum of the first four odd natural numbers?

A. 16 B. 17 C. 18 D. 20

7)The square of 42 is:

A. 1764 B. 1664 C. 1564 D. 1504

8. The Pythagorean triples whose smallest number is 8:

A. 8, 16 17 B. 8, 17, 18 C. 8, 15, 17 D. 8, 15, 16

9. The value of $9^2 - 1$ is equal to:

A. 81 B. 80 C. 79 D. 91

10. The square of 42 is:

A. 1764 B. 1664 C. 1564 D. 1504

11. The Pythagorean triples whose smallest number is 8:

A. 8, 16 17 B. 8, 17, 18 C. 8, 15, 17 D. 8, 15, 1

FILL IN THE BLANKS :

a) 16 × 16 =…….

b) The Pythagorean triples whose smallest number is 12 is ……

c)9,12,……is a Pythagorean triplet.

d) The Pythagorean triples whose largest number is 101 is …….

e) The next number of the sequence 1,3,6,10, 15,21 is …….

f) The square root of 11881 is ……..

g)If the area of a square is 7744 sq.cm , its perimeter is ……..cm

TRUE/FALSE :

i) The numbers 6,8 and 10 form a Pythagorean triplet.

ii) The number 58,564 is a perfect square.

iii) The number 19600 is a perfect square.

iv)The number of non-square numbers between 5^2 and 6^2 .

ANSWER THE FOLLOWING QUESTIONS

1) Find the square of 105.

2). Find the square root of 1764 by prim factorisation method.

3). Find the square root of 4489 by Division method.

4. Find the square root of 100 by repeated subtraction method.

5. Find the number of digits in the square root of 27225.

6. Find the least number which must be subtractedfrom1989 to get a perfect square.

7. Find the smallest number whole number by which 252 should be multiplied to get a perfect square. Also find the square root number obtained.

8. Find the difference without subtracting: a) $35^2 - 34^2$ b) $112^2 - 111^2$

9.Find the sum without actually adding: 1+3+5+7+9+11+13+15+17+19

10.Express the following as a sum of continuous odd numbers starting from 1

i) 36 ii) 81

11.Find the length of the diagonal of a square of length 30m and width 16m.

12. Find the square root of the fractions:

a) $\frac{1681}{2704}$ b) $\frac{4225}{27044}$ c) $205\ \frac{4}{9}$

13) Find the square root of the following decimals :

a) 1043.29 b) 425.5969 c) 0.001156 d) 126.7876

14.Find the value of $\sqrt{99,225}$ .Hence find the sum of $\sqrt{992.25}$ and $\sqrt{9.9225}$.

15. Find the value of $\sqrt{2,76,676}$ .Hence find the sum of $\sqrt{2766.76}$ and $\sqrt{27.6676}$.

16**.** Find the square root of the following decimal numbers correct to 2 d.p.

a)657.89 b)12.01014 c)3.2222

17. Find the value of the following correct to 2 d.p:

a) $\sqrt{5}$ b) $\sqrt{0.019}$ c) $\sqrt{1.49}$

18.Find the value of the following correct to 2 d.p: $\sqrt{\ }$

i) $\sqrt{3\frac{1}{6}}$ ii)) $\sqrt{2\frac{3}{4}}$ iii)) $\sqrt{5\frac{1}{5}}$

19. Find the value of :

a) $\frac{1}{\sqrt{3}}$ b) $\frac{\sqrt{5}}{\sqrt{9}}$ c) $\frac{\sqrt{7}}{\sqrt{14}}$

20.Find the value : i) $\sqrt{729} \times \sqrt{144}$ ii) $\sqrt{444} \times \sqrt{111}$

21.Find the height and hence find the area of equilateral triangles with the following sides:

a)8.2 cm b) 9.8 cm c) 10.8 cm