



**INDIAN SCHOOL AL WADI AL KABIR**  
**Class VIII, Mathematics *Worksheet- SQUARES AND SQUARE ROOTS***  
**SEP 2020**

**OBJECTIVE TYPE (1 Mark)**

|              |                                                                                                                        |                                                  |          |                                                  |          |                        |          |                           |
|--------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------|--------------------------------------------------|----------|------------------------|----------|---------------------------|
| <b>Q.1.</b>  | If m is the square of a natural number n, then n is                                                                    |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | The square of m                                  | <b>B</b> | Greater than m                                   | <b>C</b> | Equal to m             | <b>D</b> | Square root of m          |
| <b>Q.2.</b>  | The square root of 441 is                                                                                              |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 21                                               | <b>B</b> | 12                                               | <b>C</b> | 19                     | <b>D</b> | 29                        |
| <b>Q.3.</b>  | The square of any number (other than 1) is:                                                                            |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | Either a multiple of 3 or a multiple of 3 plus 1 | <b>B</b> | Either a multiple of 4 or a multiple of 4 plus 1 | <b>C</b> | Always a multiple of 3 | <b>D</b> | Both (A) and (B) are true |
| <b>Q.4.</b>  | The square root of 14641 will have                                                                                     |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 2 digits                                         | <b>B</b> | 3 digits                                         | <b>C</b> | 4 digits               | <b>D</b> | 5 digits                  |
| <b>Q.5.</b>  | Which of the following is not the perfect square?                                                                      |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 361                                              | <b>B</b> | 1156                                             | <b>C</b> | 1128                   | <b>D</b> | 1681                      |
| <b>Q.6.</b>  | $\sqrt{24} + \sqrt{144}$ is equal to                                                                                   |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | $\sqrt{30}$                                      | <b>B</b> | 6                                                | <b>C</b> | $\sqrt{36}$            | <b>D</b> | Both (B) and (C)          |
| <b>Q.7.</b>  | The number of squares between 60 and 70 is                                                                             |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 0                                                | <b>B</b> | 1                                                | <b>C</b> | 30                     | <b>D</b> | 2                         |
| <b>Q.8.</b>  | The unit place digit in the square of 4487                                                                             |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 9                                                | <b>B</b> | 3                                                | <b>C</b> | 1                      | <b>D</b> | 7                         |
| <b>Q.9.</b>  | If $6400 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5 \times 5$ , then $\sqrt{6400}$ is |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 8                                                | <b>B</b> | 800                                              | <b>C</b> | 80                     | <b>D</b> | 10                        |
| <b>Q.10.</b> | The number to be added to 320 to get a perfect square number                                                           |                                                  |          |                                                  |          |                        |          |                           |
|              | <b>A</b>                                                                                                               | 16                                               | <b>B</b> | 324                                              | <b>C</b> | 320                    | <b>D</b> | 4                         |

| <b>Fill in the blanks(1mark)</b> |                                                                                                                                                                                                                               |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q.11.                            | The inverse operation of square is _____.                                                                                                                                                                                     |
| Q.12.                            | The square of 125 is _____.                                                                                                                                                                                                   |
| Q.13.                            | The value of $\sqrt{\frac{1}{16}}$ is _____.                                                                                                                                                                                  |
| Q.14.                            | The square of an odd number is an _____.                                                                                                                                                                                      |
| Q.15.                            | The number of non-square numbers between $150^2$ and $151^2$ is _____.                                                                                                                                                        |
| <b>SECTION B (2 marks)</b>       |                                                                                                                                                                                                                               |
| Q.16.                            | Without actual adding find the sum of<br>$1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19$                                                                                                                                         |
| Q.17.                            | Express $15^2$ as the sum of two consecutive integers.                                                                                                                                                                        |
| Q.18.                            | A commander arranges his men, who were 11,030 in number, in the form of a square and found that 5 men are left over. How many men were there in each row?                                                                     |
| Q.19.                            | Find the smallest square number which is divisible by the given below numbers?<br>(i) 2,4 and 6 (ii) 3, 6 and 18                                                                                                              |
| Q.20.                            | Write a Pythagorean triplet whose one member is 28.                                                                                                                                                                           |
| <b>SECTION C (4 marks)</b>       |                                                                                                                                                                                                                               |
| Q.21.                            | Find the smallest whole number by which it should be multiplied and divided so as to make a perfect square number for each of the following numbers also find the square root of the perfect square number?<br>(a)768 (b)1980 |
| Q.22.                            | Find the square root of each of the following numbers by long division method.<br>(a)53361 (b)8649 (c) 84.64                                                                                                                  |
| Q.23.                            | Find the least number that must be subtracted from 5607 so as to make a perfect square number?                                                                                                                                |
| Q.24.                            | Find the greatest number of five digits which is a perfect square?                                                                                                                                                            |
| Q.25.                            | Estimate the value of the following to the nearest whole number?<br>(a) $\sqrt{285}$ (b) $\sqrt{590}$                                                                                                                         |

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## Answers

|                |           |                                 |           |                     |           |              |           |            |
|----------------|-----------|---------------------------------|-----------|---------------------|-----------|--------------|-----------|------------|
| <b>Answers</b> | <b>1</b>  | D                               | <b>2</b>  | A                   | <b>3.</b> | D            | <b>4</b>  | B          |
|                | <b>5</b>  | C                               | <b>6</b>  | D                   | <b>7</b>  | B            | <b>8</b>  | A          |
|                | <b>9</b>  | C                               | <b>10</b> | D                   | <b>11</b> | Square root  | <b>12</b> | 15625      |
|                | <b>13</b> | 1/4                             | <b>14</b> | Odd no.             | <b>15</b> | 300          | <b>16</b> | 100        |
|                | <b>17</b> | 112 , 113                       | <b>18</b> | 105                 | <b>19</b> | (i)36 (ii)36 | <b>20</b> | 28,195,197 |
|                | <b>21</b> | (i)3,48,3,16<br>(ii)55,330,55,6 | <b>22</b> | a)231 b)93<br>c)9.2 | <b>23</b> | 131          | <b>24</b> | 99856      |
|                | <b>25</b> | (i)17(ii) 24                    |           |                     |           |              |           |            |