|  | Math |  | INDIAN SCHOOL AL WADI AL KABIR <br> Class VIII, Mathematics WORKSHEET(OTQ) Squares and Square roots |  |  |  |  |  |
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| Multiple Choice Questions |  |  |  |  |  |  |  |  |
| Q1. | If 441 students were arranged in such a way that the number of rows is equal to the number of students in each row, find the number of rows. |  |  |  |  |  |  |  |
|  | A | 22 | B | 21 | C | 11 | D | 31 |
| Q2. | Which of the following numbers cannot be a perfect square? |  |  |  |  |  |  |  |
|  | A | 256 | B | 2704 | C | 1912 | D | 6889 |
| Q3. | The square of which of the following numbers will end with 1 ? |  |  |  |  |  |  |  |
|  | A | 124 | B | 365 | C | 499 | D | 138 |
| Q4. | Express $17^{2}$ as a sum of two consecutive integers. |  |  |  |  |  |  |  |
|  | A | 132+133 | B | 143+144 | C | 141+142 | D | 144+145 |
| Q5. | Find the sum without adding the numbers: $1+3+5+7+9+11+13+15+17+19+21+23+25$ |  |  |  |  |  |  |  |
|  | A | 169 | B | 196 | C | 225 | D | 256 |
| Q6. | Find the square root of 6400 |  |  |  |  |  |  |  |
|  | A | 40 | B | 80 | C | 24 | D | 800 |
| Q7. | Using property of square numbers, $29 \times 31$ can be written as |  |  |  |  |  |  |  |
|  | A | 30 ${ }^{\mathbf{2}}$-1 | B | 29 ${ }^{\text {- }} 1$ | C | $31^{2}-1$ | D | $30^{2}$ |
| Q8. | Which of the following numbers will have 6 in the unit place? |  |  |  |  |  |  |  |
|  | A | $29^{2}$ | B | $56^{2}$ | C | $21^{2}$ | D | $78^{2}$ |
| Q9. | If $x^{2}=20.25$, the find the value of x . |  |  |  |  |  |  |  |
|  | A | 40.5 | B | 2.5 | C | 4.05 | D | 4.5 |
| Q10. | The square of which of the following numbers will be an even number? |  |  |  |  |  |  |  |
|  | A | 129 | B | 450 | C | 545 | D | 231 |

Source based question: Rohan is making a working model for the Math exhibition. He collected square pieces of cardboard to make his model. He had already collected 100 square pieces.


Q11. If the area of each square piece is $729 \mathrm{sq} . \mathrm{mm}$, find the side of each square.

|  | A | 23 mm | B | 27 mm | C | 17 mm | D | 13 mm |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q12. | He arranged all the 100 square pieces to form the base of the model. Find the area of the base <br> of the model. |  |  |  |  |  |  |  |
|  | A | 72900 sq.mm | B | 2700 sq.mm | C | 7290 sq.mm | D | 79200 sq.mm |

Q13. If the square pieces are arranged in such a way that the number of rows is equal to the number

|  | A | 729 mm | B | 279mm | C | 270 mm | D | 729mm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q14. | What will be the ones place of the square of 729 ? |  |  |  |  |  |  |  |
|  | A | 9 | B | 8 | C | 6 | D | 1 |

Q15. How many non-square numbers are there in between $27^{2}$ and $28^{2}$

| A | 56 | B | 52 | C | 54 | D | 64 |
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Meenu and her friends wanted to give a pleasant surprise to their class teacher on teacher's day. They collected rose flowers to make a pattern on the board. The students brought 135 beautiful roses. They arranged the roses in rows and columns so that the number of rows is equal to number of columns.


| Q 16. | Find the minimum number of roses required more to make a square pattern using the roses. |
| :--- | :--- |
| Q 17. | How many roses will be left out if the 135 roses are arranged in a square pattern. |
| Q 18. | They also made a square shaped card of area $90.25 \mathrm{sq.cm}$. Find the length of each side of the <br> card. |
| Q 19. | There are 41 students in the class and each student contributed as many Rupees as number of <br> students in the class for the celebration. Find the amount of money collected. |
| $\mathbf{Q ~ 2 0 . ~}$ | What is the minimum number to be multiplied to 135 to make it a perfect square? |

## ANSWERS

| 1. | B) 21 | 2. | C) 1912 | 3. | C) 499 | 4. | D) $144+145$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5. | A) 169 | 6. | B) 80 | 7. | A) $30^{2}-1$ | 8. | B) $56^{2}$ |
| 9. | D) 4.5 | 10. | B) 450 | 11. | B) 27 mm | 12. | A) 72900 sq.mm |
| 13. | C) 270 mm | 14. | D) 1 | 15. | C) 54 | 16. | 9 roses |
| 17. | 14 roses | 18. | 9.5 cm | 19. | ₹ 1681 | 20. | 15 |

