INDIAN SCHOOL AL WADI AL KABIR
Dept. of Mathematics 2023 - 2024
Class X - Real Numbers (WS1)

| 1 | What is the sum of exponents of prime factors in the prime-factorization of 196 |
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| 2 | Find the HCF and the LCM of 12, 21, 15. |
| 3 | Find the LCM of smallest two-digit composite number and smallest composite number. |
| 4 | HCF of two numbers is 27 and their LCM is 162 . If one of the numbers is 54 , then what is the other number? |
| 5 | Find HCF of 144 and 198. |
| 6 | Express 225 in prime factorization. |
| 7 | If two positive integers $a$ and $b$ are written as $a=x^{3} y^{2}$ and $b=x y^{3}$, where $x, y$ are prime numbers, then find $\mathrm{HCF}(a, b)$. |
| 8 | The L.C.M. of $x$ and 18 is 36 . The H.C.F. of $x$ and 18 is 2 . What is the number $x$ ? |
| 9 | What is the HCF of smallest primer number and the smallest composite number? |
| 10 | Calculate the HCF of $3^{3} \times 5$ and $3^{2} \times 5^{2}$. |
| 11 | If HCF $(a, b)=12$ and $a \times b=1,800$, then find LCM $(a, b)$ |
| 12 | Find the least number that is divisible by all numbers between 1 and 10 (both inclusive). |
| 13 | Find HCF and LCM of 404 and 96 and verify that HCF x LCM = Product of the two given numbers |
| 14 | Given that $\operatorname{HCF}(306,1314)=18$. Find $\operatorname{LCM}(306,1314)$ |
| 15 | An army contingent of 612 members is to march behind an army band of 48 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march? |


| 16 | Write the smallest number which is divisible by both 306 and 657. |
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| 17 | 144 cartons of Coke cans and 90 cartons of Pepsi cans are to be stacked in a canteen. If each <br> stack is of the same height and if it equal contain cartons of the same drink, what would be <br> the greatest number of cartons each stack would have? <br> 18 <br> Three bells toll at intervals of 9, 12, 15 minutes respectively. If they start tolling together, <br> after what time will they next toll together? <br> 20 |
| Find HCF and LCM of 378,180 and 420 by prime factorization method. Is HCF $\times$ LCM of <br> these numbers equal to the product of the given three numbers? <br> of the product is a rational number |  |

Answers

| 1 | 4 |
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| 4 | 81 |
| 7 | $\mathrm{Xy}^{2}$ |
| 10 | 45 |
| 14 | 22338 |
| 17 | 18 |


| 2 | 420 |
| :--- | :--- |
| 5 | 18 |
| 8 | 4 |
| 11 | 150 |
| 15 | 12 |
| 18 | 180 minutes |


| 3 | 20 |
| :--- | :--- |
| 6 | $3^{2} \times 5^{2}$ |
| 9 | 2 |
| 12 | 2520 |
| 16 | 22338 |
| 20 | 3 |

