# INTERNATIONAL INDIAN SCHOOL BURAIDAH <br> Worksheet for the Academic Year 2023-24 <br> CLASS:X SUBJECT: MATHEMATICS DATE: 09-04-2023 <br> <br> LESSON:01 - REAL NUMBERS 

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1. Find the LCM of smallest two-digit composite number and smallest composite number?
(Ans: 20)
2. If $\operatorname{HCF}(a, b)=12$ and $a \times b=1500$, Find $\operatorname{LCM}(a, b)$
3. If $\mathrm{a} \& \mathrm{~b}$ are two positive co-prime integers such that $\mathrm{a}=12 \mathrm{~b}$, then $\operatorname{HCF}(a, 12)=$ (Ans: 12)
4. If $2^{3} \times 3^{a} \times b \times 7$ is the prime factorization of 2520 . Then $5 a+2 b=$ $\qquad$
5. The LCM of two numbers is 9 times their HCF. The sum of LCM and HCF is 500 .Find HCF of the two numbers
6. If the product of two co-prime numbers is 217, Find their LCM (Ans: 217)
7. The ratio between the HCF and LCM of $5,15,20$ is
(Ans: 1:2)
8. Given that $\sqrt{3}$ is an irrational, prove that $5-2 \sqrt{3}$ is an irrational number
9. Find the LCM of 96 and 360 by using fundamental theorem of arithmetic.
(Ans: 1440)
10.Find the LCM and HCF of the following pairs of integers and verify that $\mathrm{LCM} \times \mathrm{HCF}=$ Product of integers:
a) $510 \& 92$
b) $26 \& 91$
(Ans: a) LCM-23460, HCF- 2 \& b)LCM-182, HCF-13)
11.Write the smallest number which is divisible by both 306 and 657
(Ans: 22338)
10. Given that $\sqrt{ } 2$ is irrational, prove that $(3+3 \sqrt{ } 2)$ is an irrational number.
11. Find the LCM of numbers whose prime factorization are expressible as $3 \times 5^{2}$ and $3^{2} \times 7^{2}$.
(Ans: 11025)
14.If two positive integers $x \& y$ are expressible in terms of primes as $x=p^{2} q^{3}$ and $y=p^{3} q$, what can you say about their LCM and HCF. Is LCM a multiple of HCF? Explain?
15.Three bells toll at intervals of $9,12,15$ minutes respectively. If they start tolling together after, what time will they next together (Ans: 180 minute)
