MATHS

BOOKS - KALYANI MATHS (ASSAMESE ENGLISH)

RECAPITULATION: RATIONAL AND IRRATIONAL NUMBERS

Example

1. Show the following fractions have terminating decimal expression.

$$\frac{225}{8}$$

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2. Show the following fractions have terminating decimal expression.

$$\frac{664}{625}$$

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3. Show the following fractions have terminating decimal expression.

$$\frac{426}{500}$$

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4. Show that the following decimal expression can be put in the form of $\frac{p}{q}$, where q is of the form of $2^m.5^n$.

3.78125

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5. Show that the following decimal expression can be put in the form of $\frac{p}{q}$, where q is of the form of $2^m.5^n$.

0.6592

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6. Show that the following decimal expression can be put in the form of $\frac{p}{q}$, where q is of the form of $2^m.5^n$.

1.2315

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7. Show that $2 + \sqrt{3}$ is an irrational number.

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8. Prove that $\sqrt{2} + \sqrt{3}$ is irrational.

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Exercise

1. Stane Euclid's division lemma.

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2. What is an algorithm?

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3. Write down the form of any positive integer:

When it is dividing by 2.

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4. Write down the form of any positive integer:

When it is dividing by 3.

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5. Write down the form of any square of an positive integer.

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6. What is the HCF of two numbers when one of it is zero?

7. What is the HCF and LCM of two prime numbers p and q?

8. What is the LCM of x and y if the HCF is r?

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9. If $2^a \cdot 3^b \cdot 5^c = 10800$, find a, b, c.

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10. If $a^4 \cdot b^2 \cdot c = 1008$ find a, b, c.

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11. If the product and LCM of two quantities are ab^2c and abc respectively

What is their HCF?

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12. If the product and LCM of two quantities are ab^2c and abc respectively

What may be two quantit

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13. Without performing the division state $\frac{9}{1600}$ will be a terminating decimal or not.

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14. Fill In the blanks:

____ is neither prime nor composite

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15. Fill In the blanks:

The only even prime number is____.

16. Fill In the blanks:

Sum of two irrational number is .____but its product may not be_____.

17. Fill In the blanks:

There are infinite irrational numbers between any two _____ numbers.

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18. Fill In the blanks:

The ___of HCF and LCM of two numbers is _____to the product of the numbers.

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19. Euclid's division Lemma states that if a and b are any two positive integers,then there exists unique integers q and r such that

A. $0 < r < b$

B. $0 \leq r \leq b$

C. $0 \leq r < b$

D. $0 < r \leq b$

Answer:

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20. $HCF(a, b)$ equals to

A. HCF (b, r)

B. HCF (q, r)

C. HCF (a, r)

D. None.

Answer:

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21. If $LCM(91, 26) = 182$, then $HCF(91, 26)$

A. 13

B. 23

C. 7

D. None.

Answer:

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22. The largest number which divides 74 and 88 leaving remainde 2 ad 4 respectively is

A. 10

B. 14

C. 12

D. 16

Answer:

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23. The least number that is divisible by all the numbers from 1 to 3 is

A. 20

B. 10

C. 30

D. 60

Answer:

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