

गृह रचनात्मक कार्य

कक्षा - 10

विषय - हिन्दी

दिए गए अपठित काव्यांश को पढ़कर नीचे दिए गए प्रश्नों का उत्तर दीजिए/

कल-कल, छल-छल, के मधुर स्वर में

अपना गीत सुनाति हैं/

मैं कब से बुला रही उनको

पर मेरे पास नहीं आती हैं/

कुछ खेल खेले थी इसलिए

तट तक आकर फिर , भाग जाती

मैं चलूँ, साथ खेलूँ इनके

देखो यह मुझे बुलाती है/

मां , यह लहरें भी गाती हैं/

क- लहरें क्या और किस प्रकार सुनाते हैं?

ख- कौन किसे बुला रहा है?

ग- 'तट' शब्द का पर्यायवाची लिखिए?

घ- 'मधुर' शब्द का विलोम लिखिए?

ड- पद्यांश के लिए उपयुक्त शीर्षक लिखिए?

Home assignment

Class :- 10

Subject :- Social Studies

Story of Belgium

Read the story carefully and answer the questions:-

Belgium is a European country with a population of little over 1 crore. In this country the ethnic composition is complex .Of the total population 59% lives in the flemish region and speaks the dutch language .Another 40% people live in the Wallonia region and French. Remaining 1% of the Belgium speak German.

In the capital city Brussels 80% people speak French while 20% are Dutch speaking . The French Howethnic composition of Belgium is different from speaking minority community was relatively rich and powerful.This made the Dutch speaking community angry.From the 1950s to 1960s there were tensions between the two communities because of these differences.

1:-Draw a pie-chart to show Belgium ethnic composition.

2:- Name the capital city of Belgium.

3:-How the ethnic composition of Belgium is different from the ethnic composition of Brussels?

Class 10 - Maths

Home Assignment

Instruction: Read ,Learn and make notes.

R = Real Numbers:

All rational and irrational numbers are called real numbers.

I = Integers:

All numbers from (...-3, -2, -1, 0, 1, 2, 3...) are called integers.

Q = Rational Numbers:

Real number in the form of $\frac{p}{q}$, $q \neq 0$ $p, q \in \mathbb{I}$

All integers can be expressed as rational, for example, $5 = \frac{5}{1}$

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Decimal expansion of rational numbers terminating or non-terminating recurring.

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Q' = Irrational Numbers:

Real numbers which cannot be expressed in the form $\frac{p}{q}$ and whose decimal expansions are non-terminating and non-recurring.

Roots of primes like $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ etc. are irrational

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N = Natural Numbers:

Counting numbers are called natural numbers. $N = \{1, 2, 3, \dots\}$

W = Whole Numbers:

Zero along with all natural numbers are together called whole numbers. $\{0, 1, 2, 3, \dots\}$

Even Numbers:

Natural numbers of the form $2n$ are called even numbers. $(2, 4, 6, \dots)$

Odd Numbers:

Natural numbers of the form $2n - 1$ are called odd numbers. $\{1, 3, 5, \dots\}$

Why can't we write the form as $2n+1$?

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Remember this!

All Natural Numbers are whole numbers.

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All Whole Numbers are Integers.

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All Integers are Rational Numbers.

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All Rational Numbers are Real Numbers.

Prime Numbers:

The natural numbers greater than 1 which are divisible by 1 and the number itself are called prime numbers, Prime numbers have two factors i.e., 1 and the number itself For example, 2, 3, 5, 7 & 11 etc.

1 is not a prime number as it has only one factor.

Composite Numbers:

The natural numbers which are divisible by 1, itself and any other number or numbers are called composite numbers. For example, 4, 6, 8, 9, 10 etc.

Note: 1 is neither prime nor a composite number.

I. Euclid's Division lemma

Given two positive integers a and b, there exist unique integers q and r satisfying $a = bq + r$, $0 \leq r \leq b$.

Notice this. Each time 'r' is less than b. Each 'q' and 'r' is unique.

II. Application of lemma

Euclid's Division lemma is used to find HCF of two positive integers. Example: Find HCF of 56 and 72 ?

Steps:

Apply lemma to 56 and 72.

**Take bigger number and locate 'b' and 'r'.
 $72 = 56 \times 1 + 16$**

Since $16 \neq 0$, consider 56 as the new dividend and 16 as the new divisor.

$56 = 16 \times 3 + 8$ Again, $8 \neq 0$, consider 16 as new dividend and 8 as new divisor. $16 = 8 \times 2 + 0$

Since remainder is zero, divisor (8) is HCF.

Although Euclid's Division lemma is stated for only positive integers, it can be extended for all integers except zero, i.e., $b \neq 0$.

III. Constructing a factor tree:

Steps:

Write the number as a product of prime number and a composite number

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Example:

Factorize 48

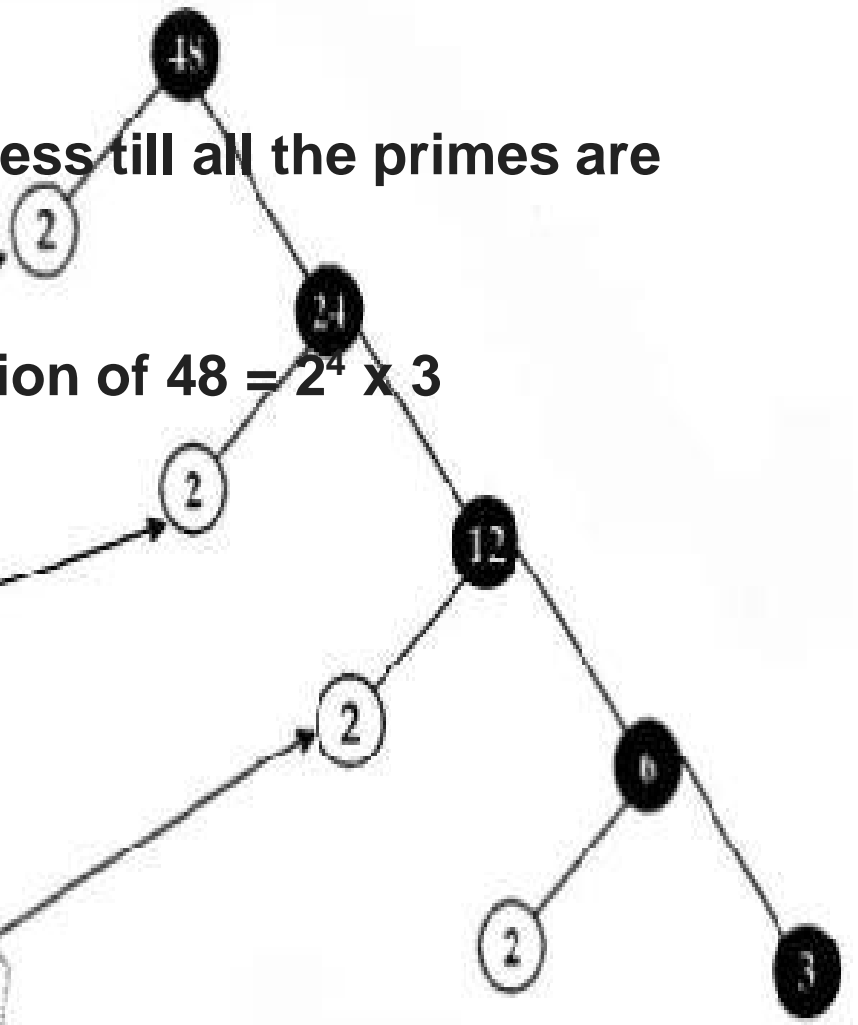
Repeat the process till all the primes are obtained

Prime factorization of $48 = 2^4 \times 3$

Rule 1
Begin with the smallest prime number

Rule 2
Prime numbers are always on left hand side of factor tree

Rule 3
Do not move to next prime if it still divides by the same prime number



IV. Fundamental theorem of Arithmetic

Every composite number can be expressed as a product of primes, and this expression is unique, apart from the order in which they appear.

Applications

- 1.To locate HCF and LCM of two or more positive integers.
- 2.To prove irrationality of numbers.
- 3.To determine the nature of the decimal expansion of rational numbers.

1.Algorithm to locate HCF and LCM of two or more positive integers:

Step I:

Factorize each of the given positive integers and express them as a product of powers of primes in ascending order of magnitude of primes.

Step II:

To find HCF, identify common prime factor and find the least powers and multiply them to get HCF.

Step III:

To find LCM, find the greatest exponent and then multiply them to get the LCM.

2. To prove Irrationality of numbers:

1. The sum or difference of a rational and an irrational number is irrational.

2. The product or quotient of a non-zero rational number and an irrational number is irrational.

3. To determine the nature of the decimal expansion of rational numbers:

1. Let $x = p/q$, p and q are co-primes, be a rational number whose decimal expansion terminates. Then the prime factorization of 'q' is of the form $2^m 5^n$, m and n are non-negative integers.

2. Let $x = p/q$ be a rational number such that the prime factorization of 'q' is not of the form $2^m 5^n$, 'm' and 'n' being non-negative integers, then x has a non-terminating repeating decimal expansion.

Alert!

2^3 can be written as: $2^3 = 2^3 5^0$

5^2 can be written as: $5^2 = 2^05^2$

AMBITION ACADEMY VARANASI

HOME ASSIGNMENT

SUB-ENGLISH

CLASS- 10th

Read the passage carefully:

1. Ever since I can remember, I always felt I was stupid, really stupid. I lost my father when I was three. Since I was a sick child, a polio victim, I lived with my grandmother in Mumbai so I could avail of the metro's advanced medical facilities. I remember being on the streets all day, playing or lazing around.

2. When I turned ten, my mother and my sister came to live in Mumbai too. My sister was a bright student, always securing high grades. She and my mother encouraged me to study, but I just could not bring myself to concentrate on any subject. I would get bored and feel sleepy when forced to open my books. After innumerable lectures on the importance of studying had failed, mother tried threats as well, but nothing worked, I truly believed I was stupid; no matter how much I worked, it wouldn't help.

3. One afternoon, as always, I was sitting under a tree in the school premises eating potato wafers when I saw a former classmate approaching me. Aditi and I had been in the same class the year before. I had failed sixth grade and had to repeat the year; Aditi had topped the class and was the brightest student of the seventh grade too. I flinched a little Aditi as I saw her walk towards me. 'Hi,' she said. 'Hi,' I replied, but not with much enthusiasm; I wanted her to leave. I continued to eat my chips. Ignoring my coldness, she sat down next to me. For five minutes neither of us spoke and then she asked, 'Is Devika your real sister?' 'Yes, she is,' I answered.

4. 'So how come she doesn't teach you so that you too can do well?' she asked. I peered at her, wondering if she was making fun of me, but all I could see on her face was earnestness. No, she is not trying to tease me, I decided. This time I answered a little more warmly, 'She tries to, but I don't like studying.' 'Why not? I'm sure you can get good grades too,' she said emphatically. 'No, I can't. I have no brains. God forgot to give me brains, health or beauty. He gave me nothing.'

5. "That's not true. And anyway, health and beauty can't be helped, but God has given brains to everyone, we only have to learn to use it.' I shook my head, 'No, I have difficulty in concentrating, and books bore me; there is no hope for me. Please leave me alone. I am stupid, and always will be.' With the gentlest tone that she could muster she said, 'I can prove it to you that you are not stupid. Give me one chance, I will teach you to study.'

6. Though I was softening from inside, I still held on to my low self-esteem. 'You'll be wasting your time. I cannot study, I am not as bright as you are nor lucky as my sister,' I said 'Let me try and help you, please. I will show you the right way to study. You just have to cooperate with me. Will you try?' Her belief in me proved more powerful than my doubts about myself. She won and I relented.

A4.1 Give reasons for the following-

- a) The writer believed that she was stupid.
- b) The writer flinched as she saw her friend walking towards her.
- c) The writer lacked interest in her studies.
- d) The writer was not a very confident or assertive girl.

4.2 Complete the following

- a) When she had to study she felt _____ and _____.
- b) The writer said that God had forgotten to give her brains _____ and _____
- c) Her mother tried to convince her to study by _____ and _____.
- d) _____ was the writer's sister and _____ was a classmate in the previous year.

4.3 From the passage find one word which means the same as –

- a) Make a sudden movement as a result of pain, fear , surprise etc. (para 3)
- b) Find as much support, courage etc as you can (para5)
- c) Finally agree to something after refusing (para 6)
- d) To look carefully at something, to see it clearly (para 4)

Ambition Academy, Varanasi

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Class- 10th

Subject- Science

Read the passage carefully & answer the question given below.

Often in news, there is information given about the ozone layer of the earth & how it needs to be protected & carefully monitored. The ozone layer is high up in the earth atmosphere called the stratosphere.

Ozone itself is a gas made up of three types of oxygen molecules. The ozone is formed when sun light hits certain oxygen molecules break them up into its smaller parts of individual atoms. The ozone layer is where there is high concentration of ozone molecules located high above in the earth atmosphere that form when the sun hits the oxygen molecules.

The ozone layer provide protection for the earth it protect the earth from the ultra violet rays of the sun. The molecules of ozone layer soak up certain dangerous ultra violet rays that are the causes of sun burns & skin cancer.

The molecules destroying the ozone are the produce on the earth these are called chlorofluorocarbons or CFCs. They consist of a group of chemical made up of chlorine, fluorine, carbon & hydrogen. They were originally used to help keep things & were found in air conditioner, refrigerator & other similar products.

Write the answer of following question.

How many types of oxygen molecules makes up ozone?

What is the purpose of the ozone layer for the earth?

Write the chemicals name of CFCs?

What happen to the ozone layer when CFCs are introduced into the atmosphere?

Draw the diagram of safe earth with two slogan?