

USE SUBJECT WISE NOTEBOOKS FOR ASSIGNMENT
Assignment-4 for duration 01 June 2020 to 15 June 2020
Assignment-5 will be uploaded on 15 June 2020

Class- 9
Subject-Maths



ASSIGNMENT - 4

CHAPTER-2. POLYNOMIALS

Ex-2.3 [NCERT]

Question 1.

Find the remainder when $x^3 + 3x^2 + 3x + 1$ is divided by

(i) $x + 1$

Solution:

Let $p(x) = x^3 + 3x^2 + 3x + 1$

(i) The zero of $x + 1$ is -1 .

$$\begin{aligned}\therefore p(-1) &= (-1)^3 + 3(-1)^2 + 3(-1) + 1 \\ &= -1 + 3 - 3 + 1 = 0\end{aligned}$$

Thus, the required remainder = 0

Question 2.

Find the remainder when $x^3 - ax^2 + 6x - a$ is divided by $x - a$.

Solution:

We have, $p(x) = x^3 - ax^2 + 6x - a$ and zero of $x - a$ is a .

$$\begin{aligned}\therefore p(a) &= (a)^3 - a(a)^2 + 6(a) - a \\ &= a^3 - a^3 + 6a - a = 5a\end{aligned}$$

Thus, the required remainder is $5a$.

Q.3. Do ques no. 3 yourself

Ex 2.4

Question 1.

Determine which of the following polynomials has $(x + 1)$ a factor.

(i) $x^3 + x^2 + x + 1$

Solution:

The zero of $x + 1$ is -1 .

(i) Let $p(x) = x^3 + x^2 + x + 1$
 $\therefore p(-1) = (-1)^3 + (-1)^2 + (-1) + 1$
 $= -1 + 1 - 1 + 1$
 $\Rightarrow p(-1) = 0$

So, $(x + 1)$ is a factor of $x^3 + x^2 + x + 1$.

* Do remain parts yourself.

Question 2.

Use the Factor Theorem to determine whether $g(x)$ is a factor of $p(x)$ in each of the following cases

(i) $p(x) = 2x^3 + x^2 - 2x - 1$, $g(x) = x + 1$

Solution:

(i) We have, $p(x) = 2x^3 + x^2 - 2x - 1$ and $g(x) = x + 1$

$\therefore p(-1) = 2(-1)^3 + (-1)^2 - 2(-1) - 1$
 $= 2(-1) + 1 + 2 - 1$
 $= -2 + 1 + 2 - 1 = 0$

$\Rightarrow p(-1) = 0$, so $g(x)$ is a factor of $p(x)$.

* Do remain parts yourself.

Question 3.

Find the value of k , if $x - 1$ is a factor of $p(x)$ in each of the following cases

(i) $p(x) = x^2 + x + k$

Solution:

For $(x - 1)$ to be a factor of $p(x)$, $p(1)$ should be equal to 0.

(i) Here, $p(x) = x^2 + x + k$

Since, $p(1) = (1)^2 + 1 + k$

$\Rightarrow p(1) = k + 2 = 0$

$\Rightarrow k = -2$.

* Do remain parts yourself

Question 4.

Factorise

(i) $12x^2 - 7x + 1$

Solution:

(i) We have,

$$12x^2 - 7x + 1 = 12x^2 - 4x - 3x + 1$$

$$= 4x(3x - 1) - 1(3x - 1)$$

$$= (3x - 1)(4x - 1)$$

Thus, $12x^2 - 7x + 1 = (3x - 1)(4x - 1)$

*Do remain parts yourself.

CLASS - 9 CHEMISTRY

1- Read chapter -2 " IS MATTER AROUND US PURE"

2- Learn and write the following:

a)What is meant by a substance?

Ans- It is a pure single form of matter. A substance has definite properties and compositions. Example – Iron.

b)Identify the solutions among the following mixtures.

(a) Soil

(b) Sea water

(c) Air

(d) Coal

(e) Soda water

Ans- The following are the solutions from the above-mentioned list of mixture:

*Sea water

*Air

*Soda water

c) What type of mixtures are separated by the techniques of crystallization?

Ans- The technique of crystallization is used to separate solids from a liquid solution. It is linked to precipitation, but in this technique, the precipitate is achieved in a crystal form which exhibits extremely high levels of purity. The principle of crystallization can be applied to purify impure substances.

d) How would you confirm that a colourless liquid given to you is pure water?

Ans- We can confirm if a colourless liquid is pure by setting it to boil. If it boils at 100°C it is said to be pure. But if there is a decrease or increase in the boiling point, we infer that water has added impurities hence not pure.

Class-9 (Biology)

Read chapter 05 from NCERT app and answer the following questions:

1. What do you mean by unicellular and multicellular organism?
2. What are plastids?
3. Name the cell organelle called as 'suicidal bags.'
4. What is the function of mitochondria?
5. Write the function of ribosomes.

For answers refer to NCERT app and pdf notes provided.

Class-9, Science (Physics)

Q1. Write differences between speed and velocity.

Q2. Define acceleration.

Q3. Show graphical presentations of velocity-time graph for the following.

1. Uniform acceleration.
2. Non-uniform acceleration.
3. Negative acceleration.
4. Uniform velocity.
5. Uniformly fall velocity.

CLASS : IX
SUBJECT: ENGLISH (WRITING SKILL)

Note down this article in your fair notebooks:

You are Priya/ Pawan. You are disturbed to see large-scale deforestation taking place in your locality in order to build new residential colonies. Write an article on the 'Dangers of Deforestation' in about 120-150 words.

DANGERS OF DEFORESTATION

----BY Pawan

Forests, trees, all kinds of vegetation are very important for our lives. Their benefits are so much that we can't live without them. These provide us with oxygen without which we can't survive even for a minute. Their benefits in all aspects of life are infinite. Forests maintain the ecological balance of nature which is very important for human survival. In the modern times, we are seeing the monsters of environmental pollution, global warming and climate change. These have endangered human life. Forests' disappearance from the surface of the earth is behind these. We see forests vanishing and concrete jungles rising in their places. The above picture shows this truth. This means that if we are to survive we shall have to plant more and more trees and check deforestation. Only then can humans survive.

Do yourself in your fair notebooks:

1. You are Sumit/ Sunidhi. Write an article on "Importance of Games" in 100-120 words with the help of given notes and your own ideas:

Games integral activity-develop a child fully-no games-dullness of child's mind-healthy body-healthy mind-games important-mere studies-exhaustion-mind and body-games divert-and activate mind.

2. A teacher motivates and inspires his/her students. Taking ideas from the following visual, write an article in about 100-120 words talking about the role and importance of teachers in our lives. You are Faiz/ Farzana.

Our teachers lead us to reach our goal.

Hats off to them!

Happy Teachers' Day!

कक्षा - ९

विषय - हिंदी

प्रश्न - १ पाठ्य पुस्तक में दी गई जानकारी के आधार पर लेखक जाबिर हुसैन व लेखिका चपला देवी का परिचय ४० - ५० शब्दों में दीजिए।

प्रश्न - २ पृष्ठ संख्या ५६ पाठ -५ के अपठित गद्यांश को पढ़कर दिए गए प्रश्नों के उत्तर दीजिए ।

प्रश्न - ३ पाठ १ - २ के प्रश्न - उत्तर याद करके रफ़ कॉपी में लिखित अभ्यास करें ।

Class 9

Sub: Economics

Chapter 1

Q1: What is Market?

Q2: Write down the names of the crops that were promoted by Green Revolution.

Q3: Give three examples of fixed capital.

Q4: Give two examples of working capital.

Q5: What are rabi crops?

Q6: Why is it important to use land carefully?

Q7: Read one chapter daily.