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WINTER BREAK HOME WORK

CLASS – IX

SUBJECT – MATHS

1. Show how $\sqrt{3}$ can be represented on the number line?
2. Visualize $7.\overline{356}$ on the number line up to 4 decimal places.
3. Factorize $4x^2 + y^2 + z^2 - 4xy - 2yz + 4xz$.
4. Show that $(x + 5)$ is a factor of the polynomial
$$f(x) = x^3 + x^2 + 3x + 115$$
5. Factorize $(p - q)^3 + (q - r)^3 + (r - p)^3$
6. Factorize : $x^2 - 4x - 21$
7. Give the geometrical representation of the equation $x = -3$ as an equation.
 - (i) In one variable
 - (ii) In two variables
8. State Euclid's any three postulates.
9. Write the fifth Euclid's postulate in your own words.
10. State and prove mid-point theorem.
11. Prove that parallelogram on the same base and between the same parallels are equal in area.
12. Prove that the diagonals of a parallelogram divide it into four triangles of equal areas therefore
13. **Define factor theorem and factorise $x^3 - 1$.**
14. **Find two solutions of linear equation $2x + 3y = 5$.**
15. **Write two rational number between $\sqrt{2}$ and $\sqrt{3}$.**
16. **Write an article on S Ramanujan-A role model for Indian Mathematicians.**

HOLIDAY HOMEWORK

CLASS IXA/B

1. You are Sakshi/Saksham, Hostel Warden, Radha Krishna Public School, Vrindavan, Uttar Pradesh. Write a letter to the Sales Manager, Bharat Electronics and Domestic Appliances Ltd., New Delhi placing an order for a few microwaves, ovens and geysers that you wish to purchase for the hostel. Also ask for discount permissible on the purchase.
2. Write an article on "Make a Digital India"
3. Make a list of the poet and poem of your test book"
4. Write the examples of Noun, Adjective and Adverb clause .
5. Indian weddings are matches in grandeur, glamour and luxury. They are matchless in wastage, extravagance and vulgar display of money and wealth. Record your experience of such marriages in your diary.
6. Develop a short story in about 200-250 words on the basis of given outlines

The illiterate boy.....caught for pick pocketing.....sent to juvenile prison.....forced

to do lessons.....becomes rebellious.....watches French comic film on T.V. during recreation

hour.....fascinated with the language.....requested coaching classes.....a French tourist guide today.

Holiday Homework for class 9th

Q.1 What factors are responsible for the distribution of plants and animals ?

Q.2 What is Tropical evergreen forest and Tropical Deciduous forest . explain its features.

Q.3 How did peasants react to stalins collectivisation programme ? How were they treated ?

Q.4 How were the Bolsheviks different from the Mensheviks ?

Q.5 How were workers in Russia divided social groups ?

Q.6 “The peace treaty of Versailles with allies was a harse and humiliating peace.” Explain it.

Q.7 Explain different types of unemployment found in India ?

Q.8 (A) On an outline map of France locate and label the following places

i) Bordeaux, ii) Nantes iii) Paris iv) Marseilles

(B) i) Central Powers – Germany, Austria, Hungary, Turkey

ii) Allied power – France, England, America

Holiday homework for class IX science.

1. Why do gymnosperm and angiosperm differ from each other
2. Give two difference between xylem and phloem
3. Define gravitational force. why does weight differ from place to place where is mass remain the same
4. Why do we hear the sound produced by Humming bees wilder sound of vibrations of Pendulum is not heard
5. State and explain the first law of motion. a body of 5 kg initially at rest subjected to force of 20 Newton calculate the kinetic energy acquired by the body at the end of 10 second
6. Give two differences between meristematic and permanent tissue
7. Write the formula of compound formed by –
 1. calcium and oxygen
 2. magnesium and nitrogen
 3. barium and chlorine
 4. Sodium and sulphur
8. Differentiate between bryophyta and pteridophyta.