

GREEN MOUNT GLOBAL SCHOOL, Bhimtal

HOME WORK FOR SUMMER BREAK (2024-25)

Class- X

ENGLISH

1 Public speaking

Nelson Mandela gave a speech on the inauguration ceremony of the installation of a democratic and non-racial government in South Africa.

Imagine that you have been elected as the School Captain, write a speech you would deliver at the investiture ceremony of your school.

Write the speech in 200 words.

2 Documentary making

Stray animals are seen rampantly roaming the streets in Haldwani these days.

Prepare a presentation on the lives of the stray animals.

3 Language Enhancement

Write 5 idioms related to animals and their meanings

4 Problem Solving

Lencho's fields were devastated by the fierce hailstorm leaving his family starving.

a) Had you been in his place, how would you tackle this situation ?

b) Every year, thousands of farmers grapple with the problem of drought and untimely rains. Write the schemes and initiatives taken by the government to help the farmers.

MATHEMATICS

1 BOOK STORE:

Read the following and answer questions from Q.1. to Q.5.

A book store shopkeeper gives books on rent for reading. He has variety of books in his store related to fiction, stories and quizzes, etc. He takes a fixed charge for the first two days and an additional charge for subsequent days. Amruta paid rs.25 for a book and kept for 6 days; while Radhika paid rs.18 for keeping the book for 4 days. Assume that the fixed charge be X and additional charge per day be Rs. Y.

1) Represent the situation of amount paid by radhika algebraically.

2) Represent the situation of amount paid by Amruta algebraically.

3) What are the fixed charges for a book ?

4) What are the additional charges for each subsequent day for a book ?

5) What is the total amount paid by both, if both of them have kept the book for 5 more days?

2 JEWELLERY SELLER:

Read the following and answer questions from Q.1. to Q.5.

Seema is an artificial jewellery seller. She buys them from a dealer at a price based on the presence or absence of stones as shown in the table below.

Item	With stones	Without stones
Ring	110	70
Earring pair	170	90
Bangle pair	90	120

1) For every ring with stones, two rings without stones are purchased by Seema's customers. Seema buys rings accordingly from the dealer for Rs 10,000. How many rings does she buy ?

2) In her next visit to the dealer, Seema finds that dealer has increased the price of rings with stones by Rs 10. Seema still wants to spend Rs. 10,000 on rings. What is the reduction in number of rings she buys?

3) Seema buys 20 earring pair with stones and 50 earring pair without stones from a dealer. What is the total amount paid to the dealer ?

4) Seema purchases 37 pairs of bangles with stones and 33 pairs of bangles without stones. She divides them into two sets. Set 1 contains 40 pairs of bangles and set 2 contains 30 pairs of bangles. What is the difference between the number of bangle pairs with stones in set 1 and the number of bangle pairs without stones in set 2 ?

5) Seema buys 100 bangle pair without stones from a dealer and sells it to a customer at Rs.15,000. What is Seema's profit?

ACTIVITY 1

Do these activities as directed below and then answer the given questions.

METHOD OF CONSTRUCTION

- 1 Take cardboard of a convenient size and paste a graph paper on it.
- 2 Consider a quadratic polynomial $f(x) = ax^2 + bx + c$
- 3 Two cases arise:
 - i) $a > 0$
 - ii) $a < 0$
- 4 Find the ordered pairs $(x, f(x))$ for different values of x .
- 5 Plot these ordered pairs in the cartesian plane.
- 6 Join the plotted points by a free hand curve .

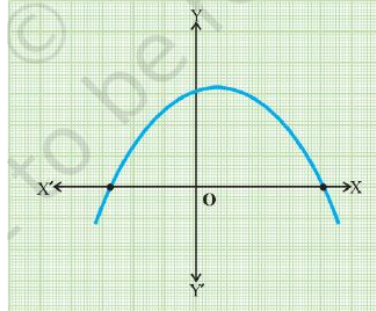


Fig. 1

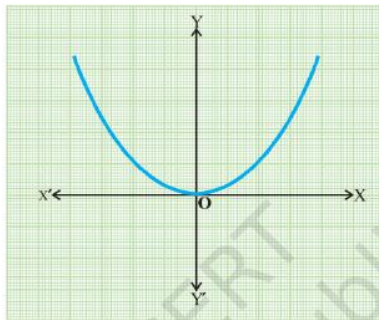


Fig. 2

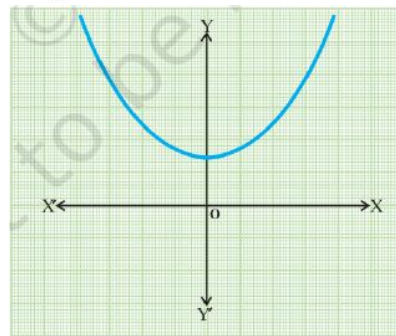


Fig. 3

- 1 Parabola in Fig. 1 opens _____
- 2 Parabola in Fig. 2 opens _____
- 3 In Fig. 1, parabola intersects x-axis at _____ point(s).
- 4 Number of zeroes of the given polynomial is _____.
- 5 Parabola in Fig. 2 intersects x-axis at _____ point(s).
- 6 Number of zeroes of the given polynomial is _____.
- 7 Parabola in Fig.3 intersects x-axis at _____ point(s).
- 8 Number of zeroes of the given polynomial is _____.
- 9 Maximum number of zeroes which a quadratic polynomial can have is _____.

ACTIVITY 2

METHOD OF CONSTRUCTION

- 1 Take a pair of linear equations in two variables of the form

$$a_1x + b_1y + c_1 = 0(1)$$

$$a_2x + b_2y + c_2 = 0,(2)$$
 where a_1, b_1, a_2, b_2, c_1 and c_2 are all real numbers; a_1, b_1, a_2 and b_2 are not simultaneously zero.
- 2 Take three different pair of equations of only one solution, no solution and infinite solution.
- 3 Take a cardboard of a convenient size and paste graph papers on it. Draw two perpendicular lines $X'OX$ and YOY' on the graph paper. Plot the graph of three equations (pairs of equations) which you have taken in point 2.

On the basis of above Activity answer the following question:

1. $a_1 = \dots, a_2 = \dots$
 $b_1 = \dots, b_2 = \dots$
 $c_1 = \dots, c_2 = \dots$
 So, $\frac{a_1}{a_2} = \dots, \frac{b_1}{b_2} = \dots, \frac{c_1}{c_2} = \dots$

$\frac{a_1}{a_2}$	$\frac{b_1}{b_2}$	$\frac{c_1}{c_2}$	Case I, II or III	Type of lines	Number of solution	Conclusion Consistent/ inconsistent/ dependent

- 5 Determine graphically the coordinate of the vertices of triangle, the equations of whose sides are given by $2y-x=8$, $5y-x=14$, and $y-2x=1$.

SCIENCE

- 1 i) Crystals of copper sulphate are heated in a test tube for some time.
 a) What is the colour of copper sulphate crystals before heating, and after heating ?
 b) What is the source of liquid droplets seen on the inner upper side of the test tube during the heating process ?
- ii) A metal X when dipped in aqueous solution of aluminium sulphate no reaction is observed whereas when it is dipped in an aqueous solution of ferrous sulphate, the pale green solution turn colourless. Identify metal X with reason.
- 2 How do differentiate photosynthesis and respiration in term of Chemistry ?
- 3 Eating junk food results in several health problems still lot of children prefer to eat junk food. What suggestion you will give to avoid eating junk food ?
- 4 Draw a labelled diagram of experimental setup for the study of liberation of carbon dioxide gas during respiration.
- 5 Define:-
 a) epiglottis b) phagocytosis c) buccal cavity
- 6 Differentiate between Real Images and Virtual images.
- 7 Define
 a) Centre of curvature of mirror b) dual nature of light c) principal focus of concave mirror
- 8 A concave mirror always forms a real and inverted image for different positions of the object. But if the object is placed between the focus and pole. the image formed is virtual and erect.
 A convex mirror always forms a virtual, erect and diminished image. A concave mirror is used as doctor's head mirror to focus light on body parts like eyes, ears, nose etc., to be examined because it can form erect and magnified image of the object. The convex mirror is used as a rear view mirrors in automobiles because it can form an small and erect image of an object.
 a) Draw ray diagram for an object placed between pole and focus of the concave mirror.
 b) Which mirror have real focus and why ?
 c) Why concave mirror is used as shaving mirrors ?
 d) How a spherical mirror is obtained ?

SOCIAL SCIENCE

- 1 Write some useful information about industries.

Type of industry	Raw material	Production	Employment
Textile industry			
Iron and steel industry			
Sugar industry			

- 2 Explain the industry-market linkage with the help of diagram.

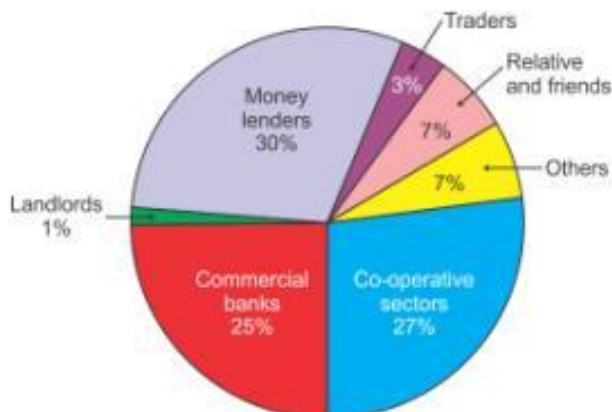
- 3 Define-

- a) Barter system
 b) Dominion status
 c) Smelting
 d) Partisanship

- 4 Draw the image of Bharat Mata by using appropriate colours under following information

- a) Name the artist who drew the image.
 b) When was it drawn?
 c) What is the significance of the image?

- 5 On a chart paper draw the process of converting Iron ore into steel.



On the basis of above pie chart find out

- a) What are the two major sources of formal and Informal sector credit in India ?
- b) Why should the credit activities of the informal sector be discouraged?
- c) Why is the formal sector credit mostly not available in rural areas?

6 Prepare a brief report on Grameen Bank (Bank of poor) of Bangladesh.

HINDI

- 1 आप राजन मिश्रा / रजनी मिश्रा है और अ, ब, स नगर में रहते / रहती हैं आपके क्षेत्र के पार्क को लोगों ने सार्वजनिक धरना प्रदर्शन का केंद्र बना दिया है, जिससे यहाँ के निवासियों को अनेक समस्याओं का सामना करना पड़ रहा है। इस समस्या के निदान के लिए आप अपने सुझाव दीजिए।
- 2 विष्णु के दस अवतार हैं उनमें से किन्हीं दो अवतारों के चित्र बनाइए जिनसे आप अधिक प्रेरित हुए।
- 3 'स्वदेशी अपनाओं' इसकी क्या आवश्यकता है। इस विषय पर अपने विचार व्यक्त कीजिए।
- 4 कबीर ने अपने दोहे में 'हिरण' का उदाहरण किस संदर्भ में दिया है ? क्या आप कबीर के विचार से सहमत हैं। अपना उत्तर स्पष्ट कीजिए।
- 5 आप ए-64 कृष्णा नगर, दिल्ली निवासी अजय / अजया हैं। सरकार की 'जन-धन योजना' पर अपने विचार व्यक्त करते हुए किसी प्रतिष्ठित समाचार पत्र के संपादक को पत्र लिखिए।
- 6 'मन के हारे हार है मन के जीते जीत' विषय पर निम्न बिंदुओं को स्पष्ट कीजिए—
 - इस उक्ति का अर्थ
 - निराशा अभिशाप
 - दृष्टिकोण परिवर्तन
 - सकारात्मक सोच

COMPUTER

Communication Skills:

- 1 How does effective communication contribute to building strong relationships in personal and professional settings ?

Application: Based

- 2 Describe a situation where you had to use different communication styles (verbal, non-verbal, written) to convey your message effectively.

Case Study: Based

- 3 Analyze a scenario where cultural differences affected communication in a workplace or community. How would you address such a situation?

Stress Management:

Critical Thinking:

- 4 Explore the relationship between time management and stress reduction. How can prioritizing tasks help in stress management ?

Application: Based

- 5 Share strategies you use to cope with academic stress. How do these strategies help you stay focused and motivated?

Case Study: Based

- 6 Analyze a scenario where a student is experiencing stress due to academic pressure. How would you provide support and guidance to help them manage their stress?

Case Study: based on Digital Documentation

- 7 Analyze a scenario where a company lost important documents due to a lack of proper digital backup systems. How would you propose a solution to prevent such incidents in the future?