

PM SHRI KENDRIYA VIDYALAYA MALKAPURAM

CLASS X - SUMMER VACATION HOME-WORK (2025-26)

SUBJECT-MATHS

Instructions for Submission:

- Write in maths notebook from pin page.
- Submission Date: First day after summer vacation.
- Marks will be awarded for neatness, completeness, and creativity.

1. Prove that:

- a) $\sqrt{2}$ is an irrational number.
- b) $\sqrt{3}$ is an irrational number.

2. Write 5 examples each of:

- Linear polynomial
- Quadratic polynomial
- Cubic polynomial

3. Find the HCF and LCM of 56 and 72 using prime factorization.

4. For the quadratic polynomial $x^2 - 5x + 6$, find its zeros and verify the relationship between the zeros and the coefficients.

5. Verify that:

- $\text{HCF} \times \text{LCM} = \text{Product of the two numbers for } (48, 84).$

6. Find the prime factorisation of 360 and express it as a product of primes.

7. Prove that $3 + 2\sqrt{5}$ is irrational.

8. Prove that $7\sqrt{2}$ is irrational.

9. Write the degree and number of terms in the following polynomials:

(i) $4x^3 - 3x^2 + 2x - 7$ (ii) $x^2 + 2x$ (iii) 7

10. Find the zero(s) of the following polynomials:

- $x^2 - 7x + 10$
- $x^2 + 2x - 15$
- $x^2 - 9$

11.If α and β are the zeros of the polynomial $x^2 - 3x + 2$, find $\alpha + \beta$, $\alpha\beta$ and Verify the relationship with coefficients.

12.Form a quadratic polynomial whose sum and product of zeroes are:

- (a) 4, 1
- (b) -3, 2

VERY VERY IMPORTANT:

- Learn all the square till 25
- learn all the cubes till 12
- learn all the tables till 25
- learn divisibility rules till 17

BASICS MATHEMATICS

FILL IN THE BLANKS

1. _____ is the additive identity and _____ is the multiplicative identity of integers.
2. $(-1) \times$ even number of times = _____
3. $(-1) \times$ odd number of times = _____
4. $38 \div 0 =$ _____
5. $0 \div 11 =$ _____
6. $13 \div 1 +$ _____
7. $55 +$ _____ = 0
8. $(-31) +$ _____ = 0
9. $(-55) +$ _____ = -89
10. $(-33) +$ _____ = 79
11. $1000 +$ _____ = - 1000
12. $[(-7) + 9] + (\text{_____}) = 9 + [-7 + 4]$
13. $(-6) + 2 = 2 (\text{_____})$
14. $251 \div$ _____ = 1

15. $(-70) \div \underline{\hspace{2cm}} = 5$
16. $\underline{\hspace{2cm}} \div 993 = 0$
17. $\underline{\hspace{2cm}} \div 2395 = 1$
18. $(-3589) \div \underline{\hspace{2cm}} = -1$
19. $22 \div \underline{\hspace{2cm}} = -11$
20. $(-1) \times (-1) \times (-1) \times (-1) \times (-1) = \underline{\hspace{2cm}}$

I **ANSWER THE FOLLOWING :**

1. Verify $a - (-b) = a + b$ for the following values of a and b. i)
 $a = -17$ $b = +15$ ii) a
 $= 50$ $b = 21$
2. Write a negative integer and a positive integer whose
a) sum -9 b) difference -4 c) sum 0
3. Find the value of each of the following products
i) $(-3) \times 15$ ii) $4 \times (-13)$ iii) $(-23) \times (-31)$
iii) $(-3) \times (-2) \times 7$ v) $2 \times (-3) \times (-1) \times (-5)$
vi) $(-259) \times (-51) \times 0$
vii) $(-8) \times 2 \times (-3) \times 5 \times (-1)$
viii) $(-2) \times (-4) \times 0 \times (-6) \times (-8)$
ix) $(-5) \times (-3) \times (-4) \times (-6) \times (-7)$
4. Verify the following
i) $(-25) \times [(-7) + (-15)] = [(-25) \times (-7)] + [(-25) \times (-15)]$
ii) $(-7) \times [(-8) + 9] = [(-7) \times (-8)] + [(-7) \times 9]$
5. Write down a pair of integers whose
i) sum is -6 ii) difference -8
iv) difference 3 iv) sum 0

6. Find the value of each of the following

i) $39 \div (-13)$

ii) $(-729) \div 9$

iii) $(-144) \div (-12)$

iv) $(-20000) \div (-200)$

v) $20513 \div (-1)$

v) $(-49) \div [(-48) + (-1)]$

vii) $[84 \div (-12)] \div 7$

viii) $[(-10) + 5] \div [20 + (-15)]$

SUBJECT – ENGLISH

1. Read at least ONE of the following Novels and write a book review on them.

a. A Tiger for Malgudi by R.K. Narayan

b. The Untouchable by Mulkraj Anand

2. Read the first five stories from your Supplementary (Footprints without feet) and write summary of them.

3. Read the first five lessons from First Flight (Text Book) and write summary of each lesson.

4. Identify difficult words from each lesson and each story and write them in your holiday homework notebook.

5. Write a letter to your friend telling him how you have helped an innocent person who had written a letter to God to send him money for some urgent expense and to support his family.

6. Write a letter to the local authority on the issue of illegal parking of private vehicles in your area, highlighting the difficulties faced by old people and children and pedestrians because of this.

7. Write answers for all the thinking about language exercises from lesson 2 to lesson 5.

8. Practise the following letters:

i). A letter of order

ii). A letter to the Editor

iii). A letter of Enquiry

विषय – हिन्दी

निर्देश:-सभी विद्यार्थी यह कार्य ग्रीष्मकालीन अवकाश में फाइल में करेंगे।

1. गोपियों की जगह आप होते तो अपना तर्क किस प्रकार देते ?
2. किसी एक स्वतंत्रता सेनानी का सचित्र वर्णन कीजिए ।
3. गोस्वामी तुलसीदास का साहित्यिक जीवन परिचय लिखिए ।
4. कन्नड़ या गुजराती भाषा के किसी एक लेखक/ कवि का सचित्र वर्णन कीजिए ।
5. सूरदास जी की प्रमुख रचनाओं के बारे में संक्षेप में लिखिए ।
6. वर्तमान समय में कोरोना की भयावह स्थिति पर एक अनुच्छेद लिखें ।
7. राम और लक्ष्मण की तीन –तीन विशेषताएं लिखिए ।
8. आप से किसी महापुरुष की मूर्ति लगाने के लिए कहा जाए तो आप किसकी मूर्ति लगाएंगे, और क्यों ?
9. क्षितिज भाग-2 के पाठ 1 से 2 एवं पाठ-10 से 12 एवं कृतिका के पाठ 1 से 3 पढ़ें । पढ़ते समय अपने साथ पेन्सिल रखें एवं कठिन शब्द जो आपको नहीं आते उसे अंडर लाइन करें एवं अपनी फाइल में लाईन वाले पृष्ठ पर 5-5 बार सुन्दर - सुन्दर सुलेख के रूप में लिखें।

SUBJECT - SCIENCE

1. Draw the diagram of human digestive system (alimentary canal), human respiratory system, circulatory system(human heart and schematic representation of transportation), human excretory system and structure of nephron in your notebook.(2 times)
2. Write an activity to show the action of saliva on starch.
3. Project report on management of natural resources.
4. Solve April monthly test paper of science in notebook.
5. Art integrated project - Write a report on forest and vegetation in Punjab.

SUBJECT-SOCIAL SCIENCE

Note: Do all work in a file of A4 size papers.

1. Make a project on any one of the following (In A4 size paper file)
 - (a) Sustainable Development
 - (b) Consumers Awareness
 - (c) Social Issues

2. Make and write ten questions and answers of one mark (one word or one sentence)
H-1 rise of nationalism in Europe, C-1 power sharing, E-1 Development, G-1 Resources and Development
3. Read newspaper daily related to political parties, election, democracy and paste any 1 article of each day in the file. (In A4 size paper file)
4. Do map practice of History and Geography . (In A4 size paper file)

विषय -संस्कृत

ग्रीष्मकालीन अवकाशस्य गृहकार्यम्

- (1) 3चित्र वर्णन
- (2) 2 अनुच्छेद
- (3) समय लेखन -1-6पर्यन्त
- (4) अव्यय -अपि, उच्चैः, एव, कदा, मा, ह्यः, श्वः से वाक्य निर्माण
- (5) परियोजना कार्य -समास लेखन