

THE ASIAN SCHOOL, DEHRADUN
HOLIDAY HOMEWORK- SUMMER VACATION 2019 FOR CLASS X

English:

- Read the following lessons carefully :
 - From the Diary of Anne Frank (Reader- First Flight)
 - The Hundred Dresses- Part 1 and 2 (Reader- First Flight)

* Look up the meanings of 15 new words from each lesson, other than the ones given in the reader.
 - Do the following language exercises from the above mentioned lessons:
 - * Page 55 to 58 - Questions 1 to 4
 - * Page 71 - 72 - Questions 1 and 3 (Part 1)
 - * Page 80 - 81 - Question 1 and 4
 - You are a member of the 'Environment Club' of your school. Write an article of 100-150 words for your school magazine on 'Need of Afforestation' in the present day world.
- OR
- Teen years are fun years. Write an article commenting on the statement in about 100-150 words.
- Read some other poems and short stories by Leslie Norris.
 - * Write the theme of anyone of the poem that you liked the best.
 - * Write the summary of one of the short stories.

Note : Do all the given work neatly in English homework notebook.

- Hindi:**
- छोटे भाई को पत्र लिखकर उसे स्वास्थ्य का महत्व और स्वस्थ रहने के उपाय बताइए।
 - किसी प्रसिद्ध समाचार पत्र के सम्पादक के नाम पत्र लिखकर रेल आरक्षण व्यवस्था में हुए सुधारों की प्रशंसा कीजिए।
 - विद्यार्थी जीवन में अनुशासन का महत्व एवं मन के हारे हार है मन के जीते जीत पर लगभग 400 शब्दों में निबन्ध लिखिए।
 - निम्नलिखित रेखांकित शब्दों का पद-परिचय दीजिए—
क) लंका के राजा रावण को राम को मार दिया।
ख) विद्यालय जाकर कुछ तो पढ़ोगे।
ग) हमारे प्रधानमंत्री नरेन्द्र मोदी अमेरिका गए।
घ) वह बालक थोड़ा खाता है।
ङ) मेरी एक कलम वहाँ रखी है।
- Note :** सम्पूर्ण कार्य अपनी गृहकार्य कॉपी में करें।

Mathematics

- Write a rational number between $\sqrt{2}$ and $\sqrt{3}$.
- Find the (HCF X LCM) for the numbers 100 and 190.
- Write whether the rational number $\frac{31}{1500}$ will have a terminating decimal expansion or a non terminating repeating decimal expansion.
- Use Euclid's division algorithm to find the HCF of 1288 and 575.
- Check whether 6^n can end with digit 0.
- Show that square of an odd positive integer is of the form $8m + 1$, for some integer m.
- Find the largest positive integer that will divide 122, 150 and 115 leaving remainder 5, 7 and 11 respectively.
- If α, β are the zeroes of $f(x) = x^2 + x - 1$, then find $\frac{1}{\alpha} - \frac{1}{\beta}$.
- Find a quadratic polynomial whose zeroes are $-\frac{2}{3}$ and $\frac{1}{4}$.
- can end with the digit 0, where n is any natural number.
- Given that LCM (26, 169) = 338, write HCF (26, 169).
- Find the HCF and LCM of 6, 72 and 120 using the prime factorization method.
- If $p(x) = \frac{1}{3}x^2 - 5x + \frac{3}{2}$ then find sum and product of its zeroes.
- Form a cubic polynomial with zeroes 3, 2 and -1.
- Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficients.
- For what value of k, (-4) is a zero of polynomial $x^2 - x - (2k + 2)$?
- If the sum of zeroes of a given polynomial $f(x) = x^3 - 3kx^2 - x + 30$ is 6. Find the value of K.
- Find a quadratic polynomial, if the sum and the product of its zeroes are 3, -5
- Find the zeroes of polynomial $x^3 - 2x^2 - x - 2$
- If the zeroes of the polynomial $x^3 - 3x^2 - x + 1$ are $\alpha - \beta, \alpha, \alpha + \beta$. Find α and β
- Check whether the polynomial $t^2 - 3$ is a factor of polynomial $2t^5 + 3t^3 - 2t^2 - 9t - 12$ by applying the division algorithm.
- Obtain all zeroes of $f(x) = x^3 + 13x^2 + 32x + 20$
- Obtain all other zeroes of $2x^4 - 7x^3 - 13x^2 + 63x - 45$, if two of its zeroes are 1 and 3
- On dividing $2x^3 + 4x^2 + 5x + 7$ by a polynomial $g(x)$, the quotient and remainder were $2x$ and $7-5x$ respectively, find $g(x)$.
- If one of the zeroes of the polynomial $2x^2 + px - 4 = 0$ is 2, find the other zero, also find the value of p.
- If α and β are the zeroes of the polynomial $kx^2 + 4x + 4$ and $\alpha^2 + \beta^2 = 24$, find the value of k.
- If α and β are the zeroes of the equation $6x^2 + x - 2 = 0$, find $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$
- Find the value of 'a' so that the point (2, a) lies on the line represented by $ax - 3y = 5$
- Find the value of k so that the lines $2x - 3y = 9$ and $kx - 9y = 18$ will be parallel.
- Find the value of k for which $x + 2y = 5, 3x + ky + 15 = 0$ is inconsistent
- For what value of k the following pair has infinite number of solutions. $(k-3)x + 3y = k$ & $k(x+y) = 12$
- Solve the equations: $3x - y = 3$ & $7x + 2y = 20$
- Solve the equation: $px + qy = p - q$ & $qx - py = p + q$
- How many terms of AP 65, 60, 55, ... be taken so that their sum is zero.

35. Solve the following pair of equations $\frac{10}{x+y} + \frac{2}{x-y} = 4$, $\frac{15}{x+y} - \frac{05}{x-y} = -2$.
36. Solve the equations by using the method of cross multiplication: $x + y = 7$ & $5x + 12y = 7$
37. A man has only 20 paise coins and 25 paise coins in his purse, If he has 50 coins in all totalling Rs. 11.25, how many coins of each kind does he have.
38. For what value of k, will the system of equations $x + 2y = 5$ & $3x + ky - 15 = 0$ has unique solution.
39. Draw the graphs of the equations: $4x - y = 4$ & $4x + y = 12$ and determine the vertices of the triangle formed by the lines representing these equations and the x-axis. Shade the triangular region.
40. Solve for u & v $4u - v = 14uv$ & $3u + 2v = 16uv$ where $u \neq 0, v \neq 0$
41. Ritu can row downstream 20 km in 2 hr, and upstream 4 km in 2 hr, find her speed of rowing in still water and the speed of the current.
42. 8 men and 12 boys can finish a piece of work in 10 days while 6 men and 8 boys can finish it in 14 days. Find the time taken by 1 man alone and that by one boy alone to finish the work.
43. Find the value of K for which the system of linear equations $2x + 5y = 3$, $(k + 1)x + 2(k + 2)y = 2K$ Will have infinite number of solutions.
44. If $\frac{1}{2}$ is a root of the equation $x^2 + kx - 5/4 = 0$, then find the value of k.
45. Find the Values of K for which the equation $9x^2 + 2kx - 1 = 0$ has real roots.
46. Find the roots of $x^2 - 3x - 10 = 0$
47. The product of two consecutive odd numbers is 483. Find the numbers.
48. Find the roots of Quadratic equation $16x^2 - 24x - 1 = 0$ by using the quadratic formula.
49. Solve the equation: $\frac{x}{x+1} - \frac{x+1}{x} = \frac{34}{15}$, $x \neq 0, x \neq -1$
50. Using quadratic formula, solve the equation: $p^2x^2 + (p^2 - q^2)x - q^2 = 0$.
51. The sum of two numbers is 15, if the sum of their reciprocals is $\frac{3}{10}$, find the numbers.
52. In a class test, the sum of shefali's marks in maths and English is 30. Had she got 2 marks more in maths and 3 marks less in English, the product of their marks would have been 210. Find her marks in the two subjects.
53. A two digit number is such that the product of its digit is 35. When 18 is added to the number, the digits interchange the places. Find the number.
54. If the roots of the equation $(a-b)x^2 + (b-c)x + (c-a) = 0$ are equal, prove that $2a = b+c$.
55. Find the value of p so that the equation $3x^2 - 5x - 2p = 0$ has equal roots. Also find the roots.
56. Find the quadratic equation whose roots are $2 + \sqrt{3}$ and $2 - \sqrt{3}$
57. A person on tour has Rs. 360 for his daily expenses. If he exceeds his tour programme by four days, he must cut down his daily expenses by Rs 3 per day. Find the number of days of his tour programme.
58. Find n^{th} term of $-15, -18, -21, \dots$
59. If $2p, p+10, 3p+2$ are in AP then find p.
60. Find sum of all odd integer between 300 & 498.
61. Which term of the A.P. $12, 7, 2, -3, \dots$ is -98?
62. If sum of n terms of an AP is $2n^2 + 5n$, then find its n^{th} term.
63. If n^{th} term of an AP is $7-4n$. Find its common difference.
64. Which term of an AP $5, 2, -1, \dots$ will be -22?
65. Determine 27^{th} term of an AP whose 9^{th} term is -10 and common difference is $1\frac{1}{2}$
66. Which term of the AP $3, 15, 27, 39, \dots$ will be 132 more than its 54^{th} term?
67. Find the sum of even numbers between 200 to 500.
68. Find the sum of first 18 terms of an A.P. whose nth term is $3-2n$.
69. The first term of an AP is -7 and the common difference 5, find its 18^{th} term and the general term.
70. How many numbers of two digits are divisible by 3?
71. The 7th term of an AP is 32 and its 13th term is 62. Find AP.
72. Find the value of 'x' for AP. $1+6+11+16+\dots+X=148$.
73. Find the 10th term from the end of the AP $8, 10, 12, \dots, 126$.
74. The sum of three numbers of AP is 3 and their product is -35. Find the numbers.
75. A man repays a loan of Rs3250 by paying Rs20 in the first month and then increase the payment by Rs15 every month. How long will it take him to clear the loan?

Physics: 1. Topic : To compute the table based on your understanding to calculate the energy consumed by your home appliances.

Electrical Device	No. of Devices	Power Rating in (kW)	Number of hours the device has been operated per day	Energy consumed in kWh per day	Total Energy consumed in 30 days
Ceiling Fan	4	1.0			
Bulbs	3	0.06			
Refrigerator	2	1.2			
Air Conditioner	3	2			
Microwave Oven	2	0.85			
Water Boiler	1	1			
Television	2	0.2			
Wifi Router	1	1.0			
Washing Machine	1	2.2			
Vacuum Cleaner	1	0.9			
Exhaust Fan	2	0.5			
Electric Fan	2	0.5			
Electric Iron	2	1.2			
Water Purifier	1	0.5			
Music System	2	0.2			
Fryer	1	1.6			
Total Energy consumed for 30 days measured in kWh					
Assumed cost per kWh of electrical energy consumed in INR					
Total amount to be paid (in INR.) for the amount of electrical energy consumed in 30 days					5.0

2. Topic : Prepare a project report on conversion of solar energy to electrical energy.

Guidelines :

- Project should have an information about solar energy, electrical energy, sources of energy, solar energy systems, conversion of solar energy to electrical energy, applications in solar heater, solar Gyger's etc.
 - Project should be handmade and it should contain 18-20 pages.
- c) Sequencing of the project should be : i) Acknowledgement, ii) Certificate, iii) Index, iv) Content, v) Bibliography

Chemistry :

- Prepare a report on Nobel Prize winners in the field of chemistry after the year 2000. The report should cover the following parameters : a) Name and place of origin b) Field of research c) Application of purpose
- Prepare a complete inventory of ores, alloys, colour, structure and applications of the following metals :
a) Copper b) Aluminium c) Iron d) Zinc e) Tin f) Manganese g) Silver h) Gold i) Mercury j) titanium

Biology: Make an investigatory project report on "Hormones in Animals" emphasizing the following points :

- Hormones (Definition).
- Types of glands and their secretions.
- Characteristics of Hormones.
- Mechanism of Hormone Action.
- Hormones, their role and disorders due to their Hyper and Hypo-secretions.
- A case study on any one Hormonal disorder.

Instructions : i) The project report should be handwritten in A-4 size pages and should be of 12-15 pages.

ii) The project report should be presented in the following order- a) Cover Page showing title of the project, student information, name of school and academic session. b) Acknowledgements c) Chapters with relevant headings d) Summary and Conclusion based on findings e) Bibliography

iii) Credit will be awarded to the original drawings, illustrations and creative use of materials.

iv) All photographs and sketches should be labelled and acknowledged.

Social Science :

Prepare a project work on the Pre and Post Independence period showcasing the development of economy and resources in India. The project should also depict how the surge of Nationalism affected the growth of the economy specially the contribution of Public Sector Undertakings till the year 1991.

The Project should include the following details:

- The total length of the project report should not be more than the 12 written pages of A-4 size sheet.
- The project work should be hand written and credit will be given to original drawing.
- It should be presented in a neatly bound simple project file. The project should be developed and presented in the following order :
 - Cover page showing project title, student information, school and year.
 - List of contents with page number.
 - Certificate page
 - Acknowledgement
 - Summary and Conclusion
 - Bibliography

The project work can include content from the following topics :

- Nationalism b) Rise of Entrepreneurs c) Entrepreneurship d) Five year plans and establishment of Public Sector Undertakings.

Computer: Q1. Define E-Mail . What are the parts of E-mail .

Q2. Differentiate between client-server model and peer-to-peer model.

Q3. How is the data transferred on internet? Explain the complete process

Q4. For the following data series created in Excel, answer the following questions:

SALARY SHEET							
EMPID	NAME	BASIC	DA	HRA	TAX	GROSS SALARY	NET SALARY
E101	AJAY	12000					
E102	MEHAK	10000					
E103	NEHA	13000					
E104	NEETA	12500					

Calculate DA AS 5% OF BASIC

Calculate HRA as 15% of BASIC

Calculate TAX as 5% of BASIC

Calculate GROSS salary as additions of basic and allowances

Calculate net salary as gross salary minus deductions

Calculate average of gross salary, sum of all net salary

Calculate no of names in the sheet.

Q5. What are the features of MS-Outlook. How can we add new contact, send and receive mail using it.

Q6. What is a spreadsheet. How can we name a range in MS-EXCEL. ? What is the advantage of it.

Q7. What do you understand by the following related to any Digital Presentation software like :

- MS-PowerPoint (a) Transition (b) Animation (c) Rehearse timings (d) Slide (e) Slide Layout

French : Conjugate all the verbs given in the book from page no 115 – 126. Complete bilan 1 on page no 28 and 29.

Note : Make a separate note book.

Principal

Vice-Principal