CHEMISTRY HOLIDAY HOMEWORK

1) LIST OF CHARTS

S. no.	TOPICS	Roll nos.
1.	Periodic Table	1 to 10
2.	Table 5.5 Page no. 65	11 to 20
3.	Table 5.6 Page no. 66	21 to 30
4.	Table 5.7 Page no. 68	31 to 40
5.	Atomic diagrams of the atoms of first 20 elements Page no. 54	41 ill the last roll no.

2) LIST OF DIAGRAMS

- **All the diagrams are to be made in A4 size blank sheets (one diagram per sheet).**
- **This work is to be done by everyone.**
- **Refer the prescribed Chemistry book (Chapter 3 – Elements, Compounds & Mixtures) for the diagrams.**

S. no.	TOPICS
1.	Magnetic separation (Fig 3.3)
2.	Gravity separation method (Fig 3.4)
3.	Sublimation (Page no. 33)
4.	Decantation (Page no. 34)
5.	Filtration (Fig 3.6)
6.	Evaporation (Fig 3.7)
7.	Distillation (Fig 3.8)
8.	Separation of immiscible liquids using separating funnel (Fig 3.9)
9.	Fractional Distillation of petroleum (Fig 3.10)
10.	Chromatography (Fig 3.11)

St Xaviers School, Doranda

Holiday Homework

Class – VIII   History

1. Read the chapters :
   - i.   The Legislature
   - ii.   The Period of Transition
2. Watch documentaries based on the above chapters.
3. Prepare 'The Legislature' for the Unit Test.

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1. Evaluate :
   (i) $-7x^2 + 18x^2 + 3x^2 - 5x^2$
   (ii) $b^2y - 9b^2y + 2b^2y - 5b^2y$
   (iii) $abx - 15abx - 10abx + 32abx$
   (iv) $7x - 9y + 3 - 3x - 5y + 8$
   (v) $3x^2 + 5xy - 4y^2 + x^2 - 8xy - 5y^2$

2. Add :
   (i) $5a + 3b, a - 2b, 3a + 5b$
   (ii) $8x - 3y + 7z, -4x + 5y - 4z, -x - y - 2z$
   (iii) $3b - 7c + 10, 5c - 2b - 15, 15 + 12c + b$
   (iv) $a - 3b + 3, 2a + 5 - 3c, 6c - 15 + 6b$
   (v) $13ab - 9cd - xy, 5xy, 15cd - 7ab,$
       $6xy - 3cd$

   (vi) $x^3 - x^2y + 5xy^2 + y^3, -x^3 - 9xy^2 + y^3,$
        $3x^2y + 9xy^2$

3. Find the total savings of a boy who saves ₹ $(4x - 6y)$, ₹ $(6x + 2y)$, ₹ $(4y - x)$ and ₹ $(y - 2x)$ in four consecutive weeks.

4. Subtract :
   (i) $4xy^2$ from $3xy^2$
   (ii) $-2x^2y + 3xy^2$ from $8x^2y$
   (iii) $3a - 5b + c + 2d$ from $7a - 3b + c - 2d$
   (iv) $x^3 - 4x - 1$ from $3x^3 - x^2 + 6$
   (v) $6a + 3$ from $a^3 - 3a^2 + 4a + 1$
   (vi) $cab - 4cad - cbd$ from $3abc + 5bcd - cda$
   (vii) $a^2 + ab + b^2$ from $4a^2 - 3ab + 2b^2$

5. (i) Take away $-3x^3 + 4x^2 - 5x + 6$ from $3x^3 - 4x^2 + 5x - 6$.
   (ii) Take $m^2 + m + 4$ from $-m^2 + 3m + 6$ and the result from $m^2 + m + 1$.

6. Subtract the sum of $5y^2 + y - 3$ and $y^2 - 3y + 7$ from $6y^2 + y - 2$.

7. What must be added to $x^4 - x^3 + x^2 + x + 3$ to obtain $x^4 + x^2 - 1$?

8. (i) How much more than $2x^2 + 4xy + 2y^2$ is $5x^2 + 10xy - y^2$?
   (ii) How much less $2a^2 + 1$ is than $3a^2 - 6$?

9. If $x = 6a + 8b + 9c$; $y = 2b - 3a - 6c$ and $z = c - b + 3a$; find :
   (i) $x + y + z$ (ii) $x - y + z$
   (iii) $2x - y - 3z$ (iv) $3y - 2z - 5x$

10. The sides of a triangle are $x^2 - 3xy + 8$, $4x^2 + 5xy - 3$ and $6 - 3x^2 + 4xy$. Find its perimeter.

11. The perimeter of a triangle is $8y^2 - 9y + 4$ and its two sides are $3y^2 - 5y$ and $4y^2 + 12$. Find its third side.

12. The two adjacent sides of a rectangle are $2x^2 - 5xy + 3z^2$ and $4xy - x^2 - z^2$. Find its perimeter.

13. What must be subtracted from $19x^4 + 2x^3 + 30x - 37$ to get $8x^4 + 22x^3 - 7x - 60$?

14. How much smaller is $15x - 18y + 19z$ than $22x - 20y - 13z + 26$?

15. How much bigger is $5x^2y^2 - 18xy^2 - 10x^2y$ than $-5x^2 + 6x^2y - 7xy$?

Simplify :

1. $a^2 - 2a + \{5a^2 - (3a - 4a^2)\}$

2. $x - y - \{x - y - (x + y) - \overline{x - y}\}$

3. $-3(1 - x^2) - 2\{x^2 - (3 - 2x^2)\}$

4. $2\{m - 3(n + \overline{m - 2n})\}$

5. $3x - [3x - \{3x - (3x - \overline{3x - y})\}]$

6. $p^2x - 2\{px - 3x(x^2 - \overline{3a - x^2})\}$

7. $2[6 + 4\{m - 6(7 - \overline{n + p}) + q\}]$

8. $a - [a - \overline{b + a} - \{a - (a - \overline{b - a})\}]$

9. $3x - [4x - \overline{3x - 5y} - 3\{2x - (3x - \overline{2x - 3y})\}]$

10. $a^5 \div a^3 + 3a \times 2a$

11. $x^5 \div (x^2 \times y^2) \times y^3$

12. $(x^5 \div x^2) \times y^2 \times y^3$

13. $(y^3 - 5y^2) \div y \times (y - 1)$

14. $3a \times [8b \div 4 - 6\{a - (5a - \overline{3b - 2a})\}]$

15. $7x + 4\{x^2 \div (5x \div 10)\} - 3\{2 - x^3 \div (3x^2 \div x)\}$

1. Add each pair of rational numbers, given below, and show that their addition (sum) is also a rational number :

(i) $\dfrac{-5}{8}$ and $\dfrac{3}{8}$

(ii) $\dfrac{-8}{13}$ and $\dfrac{-4}{13}$

(iii) $\dfrac{6}{11}$ and $\dfrac{-9}{11}$

(iv) $\dfrac{5}{-26}$ and $\dfrac{8}{39}$

(v) $\dfrac{5}{-6}$ and $\dfrac{2}{3}$

(vi) -2 and $\dfrac{2}{5}$

(vii) $\dfrac{9}{-4}$ and $\dfrac{-3}{8}$

(viii) $\dfrac{7}{-18}$ and $\dfrac{8}{27}$

2. Evaluate :

(i) $\dfrac{5}{9} + \dfrac{-7}{6}$

(ii) $4 + \dfrac{3}{-5}$

(iii) $\dfrac{1}{-15} + \dfrac{5}{-12}$

(iv) $\dfrac{5}{9} + \dfrac{3}{-4}$

(v) $\dfrac{-8}{9} + \dfrac{-5}{12}$

(vi) $0 + \dfrac{-2}{7}$

(vii) $\dfrac{5}{-11} + 0$

(viii) $2 + \dfrac{-3}{5}$

(ix) $\dfrac{4}{-9} + 1$

3. Evaluate :

(i) $\dfrac{3}{7} + \dfrac{-4}{9} + \dfrac{-11}{7} + \dfrac{7}{9}$

(ii) $\dfrac{2}{3} + \dfrac{-4}{5} + \dfrac{1}{3} + \dfrac{2}{5}$

(iii) $\dfrac{4}{7} + 0 + \dfrac{-8}{9} + \dfrac{-13}{7} + \dfrac{17}{9}$

(iv) $\dfrac{3}{8} + \dfrac{-5}{12} + \dfrac{3}{7} + \dfrac{3}{12} + \dfrac{-5}{8} + \dfrac{-2}{7}$

4. For each pair of rational numbers, verify the commutative property of addition of rational numbers :

(i) $\dfrac{-8}{7}$ and $\dfrac{5}{14}$

(ii) $\dfrac{5}{9}$ and $\dfrac{5}{-12}$

(iii) $\dfrac{-4}{5}$ and $\dfrac{-13}{-15}$

(iv) $\dfrac{2}{-5}$ and $\dfrac{11}{-15}$

(v) 3 and $\dfrac{-2}{7}$

(vi) -2 and $\dfrac{3}{-5}$

5. For each set of rational numbers, given below, verify the associative property of addition of rational numbers :

(i) $\dfrac{1}{2}, \dfrac{2}{3}$ and $-\dfrac{1}{6}$

(ii) $\dfrac{-2}{5}, \dfrac{4}{15}$ and $\dfrac{-7}{10}$

(iii) $\dfrac{-7}{9}, \dfrac{2}{-3}$ and $\dfrac{-5}{18}$

(iv) $-1, \dfrac{5}{6}$ and $\dfrac{-2}{3}$

6. Write the additive inverse (negative) of :

(i) $\dfrac{-3}{8}$

(ii) $\dfrac{4}{-9}$

(iii) $\dfrac{-7}{5}$

(iv) $\dfrac{-4}{-13}$

(v) 0

(vi) -2

(vii) 1

(viii) $-\dfrac{1}{3}$

(ix) $\dfrac{-3}{1}$

7. Fill in the blanks :

(i) Additive inverse of $\dfrac{-5}{-12} = $ ....

(ii) $\dfrac{-5}{-12} + $ its additive inverse $= $ ....

(iii) If $\dfrac{a}{b}$ is additive inverse of $\dfrac{-c}{d}$, then $\dfrac{-c}{d}$

is additive inverse of ....

And so $\dfrac{a}{b} + \dfrac{(-c)}{d} = \dfrac{(-c)}{d} + \dfrac{a}{b} = $ ....

8. State, true or false :

(i) $\dfrac{7}{9} = \dfrac{7+5}{9+5}$

(ii) $\dfrac{7}{9} = \dfrac{7-5}{9-5}$

(iii) $\dfrac{7}{9} = \dfrac{7 \times 5}{9 \times 5}$

(iv) $\dfrac{7}{9} = \dfrac{7 \div 5}{9 \div 5}$

(v) $\dfrac{-5}{-12}$ is a negative rational number

(vi) $\dfrac{-13}{25}$ is smaller than $\dfrac{-25}{13}$.

1. Evaluate :

(i) $\dfrac{2}{3} - \dfrac{4}{5}$

(ii) $\dfrac{-4}{9} - \dfrac{2}{-3}$

(iii) $-1 - \dfrac{4}{9}$

(iv) $\dfrac{-2}{7} - \dfrac{3}{-14}$

(v) $\dfrac{-5}{18} - \dfrac{-2}{9}$

(vi) $\dfrac{5}{21} - \dfrac{-13}{42}$

2. Subtract :

(i) $\dfrac{5}{8}$ from $\dfrac{-3}{8}$

(ii) $\dfrac{-8}{11}$ from $\dfrac{4}{11}$

(iii) $\dfrac{4}{9}$ from $\dfrac{-5}{9}$

(iv) $\dfrac{1}{4}$ from $\dfrac{-3}{8}$

(v) $\dfrac{-5}{8}$ from $\dfrac{-13}{16}$

(vi) $\dfrac{-9}{22}$ from $\dfrac{5}{33}$

3. The sum of two rational numbers is $\dfrac{9}{20}$. If one of them is $\dfrac{2}{5}$, find the other.

4. The sum of two rational numbers is $\dfrac{-2}{3}$. If one of them is $\dfrac{-8}{15}$, find the other.

5. The sum of the two rational numbers is –6. If one of them is $\dfrac{-8}{5}$, find the other.

6. Which rational number should be added to $\dfrac{-7}{8}$ to get $\dfrac{5}{9}$?

7. Which rational number should be added to $\dfrac{-5}{9}$ to get $\dfrac{-2}{3}$?

8. Which rational number should be subtracted from $\dfrac{-5}{6}$ to get $\dfrac{4}{9}$?

9. (i) What should be subtracted from –2 to get $\dfrac{3}{8}$?

(ii) What should be added to –2 to get $\dfrac{3}{8}$?

10. Evaluate :

(i) $\dfrac{3}{7} + \dfrac{-4}{9} - \dfrac{-11}{7} - \dfrac{7}{9}$

(ii) $\dfrac{2}{3} + \dfrac{-4}{5} - \dfrac{1}{3} - \dfrac{2}{5}$

(iii) $\dfrac{4}{7} - \dfrac{-8}{9} - \dfrac{-13}{7} + \dfrac{17}{9}$

1. Evaluate :

(i) $\dfrac{-14}{5} \times \dfrac{-6}{7}$

(ii) $\dfrac{7}{6} \times \dfrac{-18}{91}$

(iii) $\dfrac{-125}{72} \times \dfrac{9}{-5}$

(iv) $\dfrac{-11}{9} \times \dfrac{-51}{-44}$

(v) $-\dfrac{16}{5} \times \dfrac{20}{8}$

2. Multiply :

(i) $\dfrac{5}{6}$ and $\dfrac{8}{9}$

(ii) $\dfrac{2}{7}$ and $\dfrac{-14}{9}$

(iii) $\dfrac{-7}{8}$ and 4

(iv) $\dfrac{36}{-7}$ and $\dfrac{-9}{28}$

(v) $\dfrac{-7}{10}$ and $\dfrac{-8}{15}$

(vi) $\dfrac{3}{-2}$ and $\dfrac{-7}{3}$

3. Evaluate :

(i) $\left(\dfrac{2}{-3} \times \dfrac{5}{4}\right) + \left(\dfrac{5}{9} \times \dfrac{3}{-10}\right)$

(ii) $\left(2 \times \dfrac{1}{4}\right) - \left(\dfrac{-18}{7} \times \dfrac{-7}{15}\right)$

(iii) $\left(-5 \times \dfrac{2}{15}\right) - \left(-6 \times \dfrac{2}{9}\right)$

(iv) $\left(\dfrac{8}{5} \times \dfrac{-3}{2}\right) + \left(\dfrac{-3}{10} \times \dfrac{9}{16}\right)$

4. Multiply each rational number, given below, by one (1) :

(i) $\dfrac{7}{-5}$

(ii) $\dfrac{-3}{-4}$

(iii) 0

(iv) $\dfrac{-8}{13}$

(v) $\dfrac{-6}{-7}$

5. For each pair of rational numbers, given below, verify that the multiplication is commutative :

(i) $\dfrac{-1}{5}$ and $\dfrac{2}{9}$

(ii) $\dfrac{5}{-3}$ and $\dfrac{13}{-11}$

(iii) 3 and $\dfrac{-8}{9}$

(iv) 0 and $\dfrac{-12}{17}$

6. Write the reciprocal (multiplicative inverse) of each rational number given below :

(i) 5

(ii) –3

(iii) $\dfrac{5}{11}$

(iv) $\dfrac{-7}{-8}$

(v) $\dfrac{-8}{-7}$

(vi) $\dfrac{15}{-17}$

7. Find the reciprocal (multiplicative inverse) of :

(i) $\dfrac{3}{5} \times \dfrac{2}{3}$

(ii) $\dfrac{-8}{3} \times \dfrac{13}{-7}$

(iii) $\dfrac{-3}{5} \times \dfrac{-1}{13}$

8. Verify that $(x + y) \times z = x \times z + y \times z$, if

(i) $x = \dfrac{4}{5}$, $y = \dfrac{-2}{3}$ and $z = -4$

(ii) $x = 2$, $y = \dfrac{4}{5}$ and $z = \dfrac{3}{-10}$

9. Verify that $x \times (y - z) = x \times y - x \times z$, if

(i) $x = \dfrac{4}{5}$, $y = -\dfrac{7}{4}$ and $z = 3$

(ii) $x = \dfrac{3}{4}$, $y = \dfrac{8}{9}$ and $z = -5$

10. Name the multiplication property of rational numbers shown below :

(i) $\dfrac{3}{5} \times \dfrac{-8}{9} = \dfrac{-8}{9} \times \dfrac{3}{5}$

(ii) $\dfrac{-3}{4} \times \left(\dfrac{5}{7} \times \dfrac{-8}{15}\right) = \left(\dfrac{-3}{4} \times \dfrac{5}{7}\right) \times \dfrac{-8}{15}$

(iii) $\dfrac{4}{5} \times \left(\dfrac{3}{-8} + \dfrac{-4}{7}\right) = \dfrac{4}{5} \times \dfrac{3}{-8} + \dfrac{4}{5} \times \dfrac{-4}{7}$

(iv) $\dfrac{-7}{5} \times \dfrac{5}{-7} = 1$

(v) $\dfrac{8}{-9} \times 1 = 1 \times \dfrac{8}{-9} = \dfrac{8}{-9}$

11. Fill in the blanks :

(i) The product of two positive rational numbers is always ....

(ii) The product of two negative rational numbers is always ....

EXERCISE 1(D)

1. Evaluate :

   (i) $1 \div \dfrac{1}{3}$
   (ii) $3 \div \dfrac{3}{5}$

   (iii) $-\dfrac{5}{12} \div \dfrac{1}{16}$
   (iv) $-\dfrac{21}{16} \div \left(\dfrac{-7}{8}\right)$

   (v) $0 \div \left(-\dfrac{4}{7}\right)$
   (vi) $\dfrac{8}{-5} \div \dfrac{24}{25}$

   (vii) $-\dfrac{3}{4} \div (-9)$
   (viii) $\dfrac{3}{4} \div \left(-\dfrac{5}{12}\right)$

   (ix) $-5 \div \left(-\dfrac{10}{11}\right)$
   (x) $\dfrac{-7}{11} \div \left(\dfrac{-3}{44}\right)$

2. Divide :

   (i) 3 by $\dfrac{1}{3}$
   (ii) -2 by $\left(-\dfrac{1}{2}\right)$

   (iii) 0 by $\dfrac{7}{-9}$
   (iv) $\dfrac{-5}{8}$ by $\dfrac{1}{4}$

   (v) $-\dfrac{3}{4}$ by $-\dfrac{9}{16}$

3. The product of two rational numbers is –2. If one of them is $\dfrac{4}{7}$, find the other.

4. The product of two numbers is $-\dfrac{4}{9}$. If one of them is $\dfrac{-2}{27}$, find the other.

5. m and n are two rational numbers such that $m \times n = -\dfrac{25}{9}$.

   (i) if $m = \dfrac{5}{3}$, find n,   (ii) if $n = -\dfrac{10}{9}$, find m.

6. By what number must $-\dfrac{3}{4}$ be multiplied so that the product is $-\dfrac{9}{16}$?

7. By what number should $\dfrac{-8}{13}$ be multiplied to get 16 ?

8. If $3\frac{1}{2}$ litres of milk costs ₹ 49, find the cost of one litre of milk ?

9. Cost of $3\frac{2}{5}$ metre of cloth is ₹ $88\frac{1}{2}$. What is the cost of 1 metre of cloth ?

10. Divide the sum of $\frac{3}{7}$ and $\frac{-5}{14}$ by $-\frac{1}{2}$.

11. Find $(m + n) \div (m - n)$, if :

(i) $m = \frac{2}{3}$ and $n = \frac{3}{2}$

(ii) $m = \frac{3}{4}$ and $n = \frac{4}{3}$

(iii) $m = \frac{4}{5}$ and $n = -\frac{3}{10}$

12. The product of two rational numbers is −5. If one of these numbers is $\frac{-7}{15}$, find the other.

13. Divide the sum of $\frac{5}{8}$ and $\frac{-11}{12}$ by the difference of $\frac{3}{7}$ and $\frac{5}{14}$.

COMPUTER : HOLIDAY HOMEWORK

CLASS – 8

- USING WHITE SHEETS MAKE AN ASSIGNMENT ON GENERATIONS OF OPERATING SYSTEM.

[NOTE- SUBMIT IT IN A STICK FILE.]

HOLIDAY HOME WORKS BIOLOGY

Class 8 ----- Transport in plants : Workbook

Holiday Homework (Session 2024-2025)   Class: VIII

A. Guided English: Comprehension

    i.   Ch: 2 Sinking of the Titanic: Question B: 2,4,6,7,8,9
    ii.   Ch: 3 Monarch of the Ice: Question B: 1.4,5.7,8,10

B. Informal Letter Writing:

Imagine that you have recently eaten at a food stall or a restaurant. On the next page, write an informal letter to a friend describing the place and the food. Mention what you liked or did not like about the place.

C. In not more than 300-350 words write an argumentative composition on:
"Wild animals should never be kept in zoos"

OR

"It is essential to learn English in India"

D. The English Treasure (S.R): Read the lessons: Ch. 2: "The Fence"
Ch. 6: "The Babus of Nayanjore"

Note: Kindly write the Holiday Homework in a thin (24 pages) note book.

Holiday Homework – 2024-25
Class 8
Subject: Physics

A) The students as per their roll nos. are required to make charts for the following topics :

Roll 1-12 (Difference between solids , liquids and gases)
Roll 11-24 (Interconversion of the states of matter)
Roll 25-36 (Factors affecting the rate of evaporation)
Roll 37-48 (Vessels for measuring volume)
Roll 49-54 (Difference between evaporation and boiling)

B) Learn Ch-1(Matter) and Ch-2 (Physical Quantities and Measurement)

ST.XAVIER'S SCHOOL ,DORANDA RANCHI

CLASS – 8C   **SUBJECT – PHYSICS**   **SESSION – 2024-25**

HOLIDAY HOMEWORK

1. Learning Elementary Physics Work Book
   - Complete the Questions and Answers of chapter 1 & 2 in the workbook.
   - Answers must be written in pen.
2. Prepare a chart paper according to the following topics.
   - Draw the figure to show the interconversion of change of state.(Roll nos -1 to 26)
   - Draw a table of distinction between solids, liquids and gases. (Roll nos – 27 to 53)
   - Each child has to prepare their individual chart and marks will be allotted on the basis of the same.

St. Xavier's School, Doranda

Holiday Homework

Physics

Class 8 A

I. **Learning Elementary Physics Work Book**
    Ch -1 Matter
    - Solve the questions of ch-1 in your workbook.
    - Answers must be written in ink only.

II. **Revised Concise Physics**
    Ch-1 Matter
    - Complete all the question of ch-1 in your HW copy.
      (If you have completed then there is no need to do it again)
      Ch-2 Physical Quantities and Measurement
    - Complete
      A. Objective Type Questions
      B. Short Answer Type Questions (Q. No. 1,2,3,4)
      E. Numerical (Q. No. 1,2,3,4,5,6,7)
    - Do this in the same, homework copy which you made previously.

Note: *Marks will be given for Workbook, Homework copy and classwork copy.*

                                                              Ms. Beauty Bhadra