

Welland Gouldsmith School

Class VIII MATHEMATICS

Rational Numbers 1

Choose correct answer(s) from the given choices

(1) If $\frac{p}{q} = \frac{p \times m}{q \times n}$ then which of the following statements is always true?

a. $m = 1$

b. $m = \frac{1}{n}$

c. $n = 1$

d. $m = n$

(2) What is the relation of $\frac{12}{19}$ to $\frac{19}{12}$ described as?

a. Multiplicative Inverse

b. Additive Identity

c. Multiplicative Identity

d. None of these

(3) Out of the three rational numbers, $\frac{-1}{13}$, $\frac{1}{-14}$ and $\frac{-1}{19}$, which is greater?

a. $\frac{-1}{13}$

b. $\frac{-1}{19}$

c. $\frac{1}{-14}$

d. Rational numbers can not be compared

(4) Which of the following statement is true?

a. $\frac{6}{-7} > \frac{-24}{28}$

b. $\frac{6}{-6} > \frac{6}{-7}$

c. $\frac{6}{-7} = \frac{-24}{28}$

d. $\frac{6}{-7} < \frac{-24}{28}$

Fill in the blanks

(5) Find the following product and simplify it to lowest term:

A) $\frac{5}{5} \times \frac{1}{4} \times \frac{5}{5} =$

B)

$$\frac{4}{4} \times \frac{-3}{4} \times \frac{-3}{2} \times \frac{-2}{5} = \frac{\square}{\square}$$

Answer the questions

(6) Out of the three rational numbers, $\frac{-3}{11}$, $\frac{3}{-12}$ and $\frac{-3}{15}$, which is smaller ?

(7) A basket contains three type of fruits weighing $\frac{120}{6}$ kg in all. If $\frac{60}{7}$ kg of these are apples, $\frac{47}{2}$ kg are oranges and the rest are pears. What is the weight of the pears in the basket?

(8) Is $\frac{4}{9}$ the multiplicative inverse of $-2\frac{1}{4}$? Why or why not ?

(9) What is the multiplicative inverse of $\frac{6}{28}$?

(10) Find 16 rational numbers between $\frac{-1}{21}$ and $\frac{19}{21}$

Rational Numbers 2

Choose correct answer(s) from the given choices

- (1) What is the lowest form of the rational number $\frac{15}{6}$?
- a. $\frac{5}{6}$ b. $\frac{10}{4}$
- c. $\frac{6}{15}$ d. $\frac{5}{2}$

(2) Regarding rational numbers:

A. The quotient of two integers is always a rational number and

$\frac{4}{0}$ is not a rational number.

Which of the following statements is correct ?

- a. A is correct and B is correct explanation of A. b. A is correct but B is incorrect.
- c. A is false but B is a correct explanation of A. d. Both A and B are false.

(3) Which of the following statement is true?

- a. $\frac{7}{-8} > \frac{7}{-9}$ b. $\frac{7}{-9} = \frac{-14}{18}$
- c. $\frac{7}{-9} < \frac{-14}{18}$ d. $\frac{7}{-9} > \frac{-14}{18}$

(4) If $\frac{p}{q} = \frac{p \times m}{q \times n}$ then which of the following statements is always true?

- a. $m = 0$ b. $n = 1$
- c. $m = n$ d. $m = 1$

Fill in the blanks

(5) Add the following rational numbers:

A)

$$\frac{10}{33} + \frac{18}{33} = \frac{\square}{\square}$$

B)

$$\frac{3}{5} + \frac{1}{5} = \frac{\square}{\square}$$

$$\text{C) } \frac{17}{38} + \frac{18}{38} = \frac{\square}{\square}$$

$$\text{D) } \frac{8}{23} + \frac{4}{23} = \frac{\square}{\square}$$

(6) Solve the following and simplify to lowest term:

$$\text{A) } \frac{-2}{3} + \frac{-6}{6} + \frac{-6}{4} = \frac{\square}{\square}$$

$$\text{B) } \frac{-4}{2} + \frac{-5}{4} + \frac{-5}{6} + \frac{4}{2} + \frac{4}{6} = \frac{\square}{\square}$$

Answer the questions

(7) Find 18 rational numbers between $\frac{-9}{15}$ and $\frac{12}{28}$.

(8) Write the rational number that does not have a reciprocal.

(9) What is the sum of $\frac{4}{11}$ and the reciprocal of $\frac{5}{8}$?

(10) Name the property that is reflected in the following expression:

$$\text{A) } \frac{4}{5} \times (6 \times \frac{-11}{-4}) = (\frac{4}{5} \times 6) \times \frac{-11}{-4}$$

$$\text{B) } \frac{-6}{17} \times \frac{-1}{-5} + \frac{-8}{-25} \times \frac{-1}{-5} = \frac{-1}{-5} (\frac{-6}{17} + \frac{-8}{-25})$$

Class VIII PHYSICS

WORKSHEET: 1

1) Fill in the blanks with the correct option:

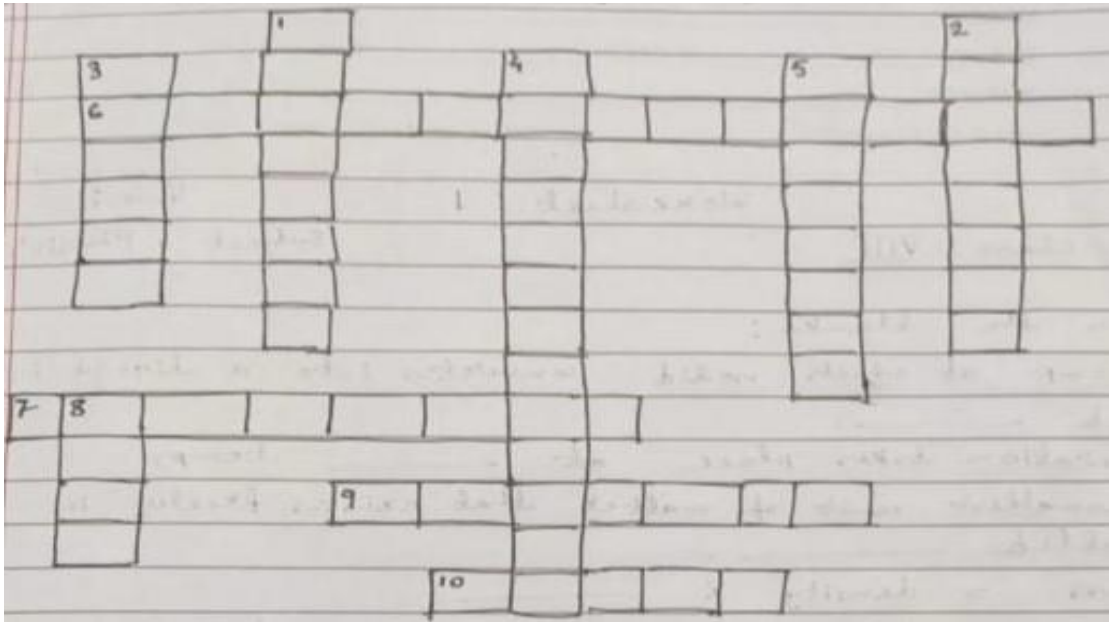
- a) The temperature at which solid converts into liquid is called ----- . (melting point, boiling point, ice point).
- b) The smallest unit of matter that exists freely in nature is known as ----- . (atom, molecule, element).
- c) Mass = Density \times ----- (pressure, volume, weight).
- d) The atmospheric pressure at sea level is ----- . (76 cm of Hg, 760 cm of Hg)
- e) Speed of light in air is ----- . (3×10^8 m/s, 4×10^8 m/s, 6×10^8 m/s)
- f) Liquid expands ----- than solids. (more, less, equal)
- g) The time period of a wave is 2 seconds, its frequency will be ----- . (0.5 s, 0.8 s, 0.4s).
- h) Melting point of ice is ----- . (100 .C, 0 .C, 120 .C)

2) Match the column:

Column A	Column B
1. Molecules	Water boils
2. 100 .C	Evaporation
3.) 0 .C	Changes from solid to gas
4. At all temperature	Matter
5. Camphor	Water freezes



3. Solve the following puzzle:



Across:

6. force between two charged objects
7. the force acting between the two poles of a magnet
9. force applied by direct touching an object
10. term used for liquid and gas together

Down:

1. force applied per unit area
2. the force necessary for our smooth motion
3. unit of force
4. force with which earth revolves around the sun
5. the net resultant of forces acting on an object is zero
8. pressure depends upon
4. Select the correct alternate:
 - a) The inter molecular space is maximum in 1. liquids 2. Gases 3. solids 4. none
 - b) the temperature at which liquid gets converted into its vapor state is called point 1. melting 2. Boiling 3. dew 4. freezing
 - c) Pressure exerted by a liquid is due to its: 1. weight 2. mass 3. volume 4. area
 - d) Nose bleeding at high altitude may occur because 1. the atmospheric pressure decreases 2. the oxygen content of the atmosphere decreases 3. the atmospheric pressure increases 4. there are strong air currents at high altitude

5. Name the type of energy (kinetic or potential)

- a compressed spring
- a moving bus
- a bullet fired from a gun
- water flowing in the river
- a stretched rubber
- a falling hammer strikes an nail
- a stretched bow
- a girl moving on the road

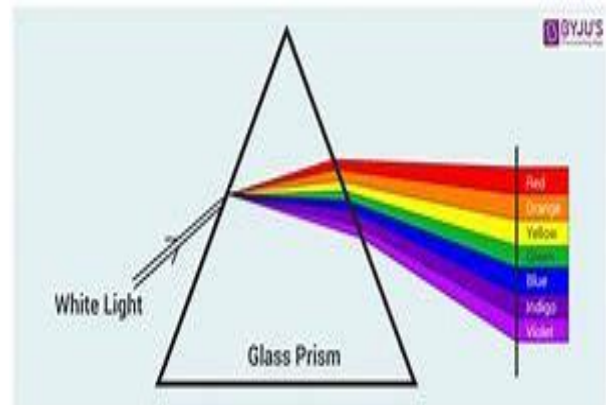
6. Explain why in hot summer days water remains cool in earthen pots?

7. Name the various colors present in the spectrum of sunlight.

8. Convert 98-degree F to degree C and 78 degree C to kelvin scale?

9. What are the precautions to be taken while using electricity?

10. Give examples of stringed instruments and wind instruments.



**Class VIII
PHYSICS**

WORKSHEET: 2

1. State the invention of the following famous scientists:

John Dalton, Albert Einstein, J.J Thomson, Rutherford, Isaac Newton, George Simon Ohm, Max Planck, Archimedes, C.V Raman, Homi.J. Bhabha, Meghnad Saha, Satyendra Nath Bose.

2. **Fill in the blanks from the options given:**

1. Like charges ----- while unlike charges. (repel/attract).
2. Mercury is a ----- (good/poor) conductor of electricity while pure water is a ----- (good/poor) of electricity.
3. ----- is the surest test of magnetism. (attraction/repulsion).
4. Negative electrification of a body is due to the ----- (excess/shortage) of the electrons.
5. The materials which don't allow the heat energy to flow through them are called ---- (conductors/insulators).

3. Match the column:

Column A	Column B
1. virtual images	Sharp cutting edge
2. invar	Maximum displacement
3. no limit	Convex mirror
4. solid to gases	Ampere
5. frequency	Cooking utensils
6. real images	Pendulum of a clock
7. Pyrex glasses	Relative density
8. current	I/T
9. knife	Concave mirror
10. amplitude	Sublimation

4. **State the energy changes in the following:**

electric bulb, electric motor, microphone, steam engine, loudspeaker

5. In which of the following cases is work being done:

a boy pushing a heavy rock, a boy climbing up the stairs, a coolie standing with a box on his head, a girl moving on the road, the earth moves around the sun

6. A liquid can change into vapor state:

- i) At fixed temperature and
- ii) At all temperature. Name the process involved in the two cases

7. Why are volatile liquid such as spirit stored in tightly closed bottles?

8. Which of the following will float or sink on water? (density of water = 1 g/cm^3)

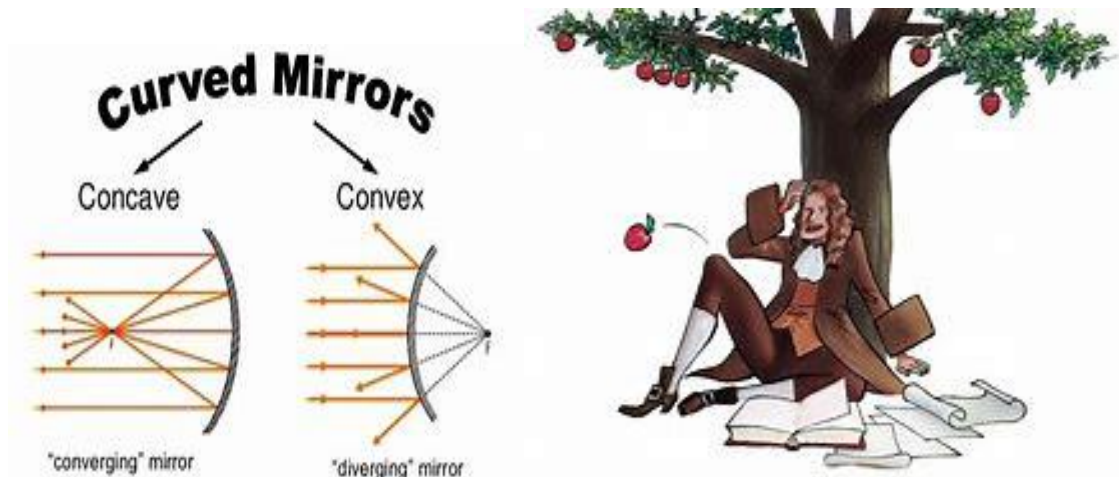
1. body A having density 500 g/cm^3
2. body B having density 0.85 g/cm^3

9. State the kind of mirror used:

- a) By a dentist
- b) As a street light reflector

10. Why does a plastic comb rubbed with dry hair attract bits of paper?

11. State two safety measures that you will observe during a thunderstorm.











Thunderstorm Safety Tips

- Don't take metal out in a thunderstorm, or stand by high things made of metal during a thunderstorm.
- If there is a thunderstorm with lightning, you need to stay away from large bodies of water.
- Never stand in an open field or under a tree during a thunderstorm.
- Stay as close to the ground as you can if there is lightning.
- Turn off and unplug any equipment in your house.

**Class VIII
CHEMISTRY
WORKSHEET**

I. Match the columns: -

4 Mins


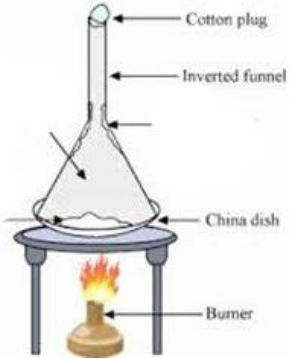
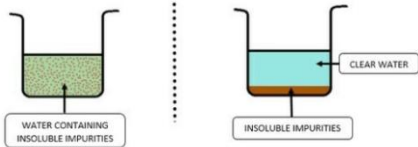
A	Metal	1	 Sulphur
B	Metalloid	2	 Bronze
C	Noble Gas	3	 Sugar + H ₂ O
D	Homogeneous Mixture	4	 Silver
E	Heterogeneous Mixture	5	 Mercury
F	Non-metal	6	 Salt and Sand
G	Alloy	7	 Arsenic
H	Metal that is liquid at room temperature	8	 Helium

II. Quiz Time

- Alloy used for making bodies of an aircraft is
a) Steel b) Bronze C) Duralumin D) Brass
- Hardest substance in nature is
a) Silver b) Gold c) Diamond d) Platinum
- Gold is used in making jewellery due to its
a) hardness b) luster c) density d) sonority
- Highly concentrated solution of sugar is
a) syrup b) soada water c) mineral water d) saline water
- Metal having highest melting point
a) Gold b) Silver c) Tungsten d) Platinum
- Liquid non metal
a) Bromine b) Sulphur c) Chlorine d) Oxygen
- A non metal which possesses luster
a) Carbon b) Sulphur c) Helium d)Iodine
- Solder is an alloy of
a) Lead and Tin b) Lead and Copper c) Lead and Nickel d) Tin and Copper

III. Complete the following table

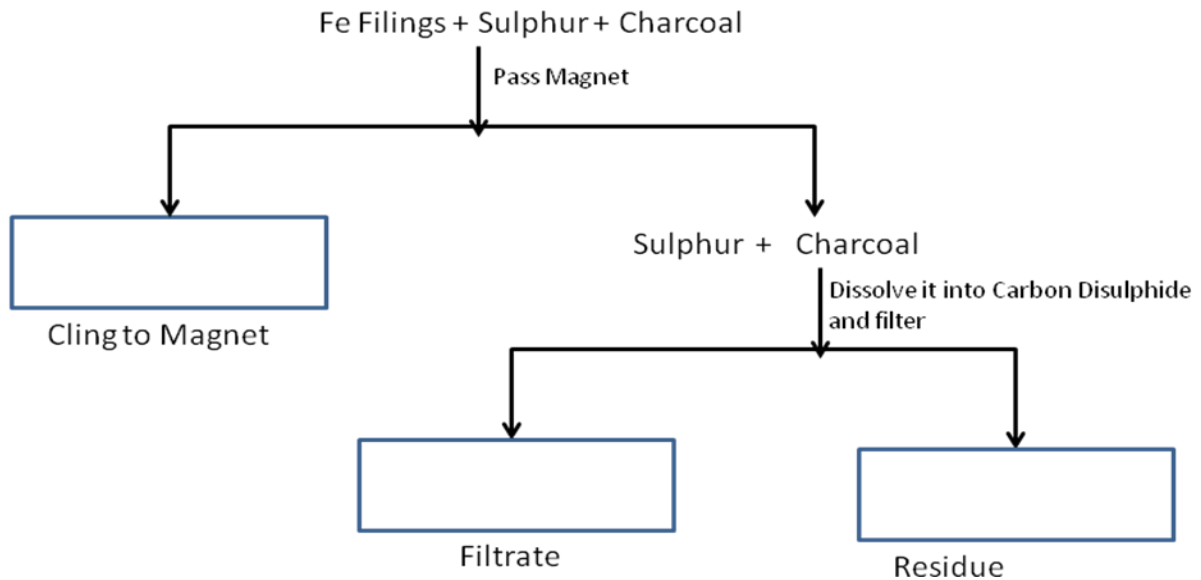
10 Mins

Sl. No	Diagram	Method	Example
1			
2			
3			

4			
5			
6			

IV. Complete the chart

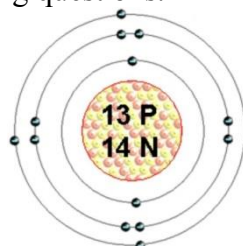
4 Mins



**Class VIII
CHEMISTRY
Assignment 1**

- I. Identify the changes as per instruction. Think and write a suitable reason for your answer** 12 Mins
- a. Dissolution of sugar in water (Physical / Chemical)
 - b. Rusting of iron (Reversible / Irreversible)
 - c. Magnetisation of an iron nail (Physical / Chemical)
 - d. Ripening of fruit (Desirable / Undesirable)
 - e. Flowering of plants (Natural / Man made)
 - f. Freezing of water. (Reversible / Irreversible)

- II. Look at the figure and answer the following questions.** 8 Mins



- a. State the atomic number and mass number
- b. How many neutrons, protons and electrons are there in the atom.
- c. Identify the element
- d. Write the symbol of the element
- e. Draw the atomic structure model of an element having one proton and one neutron more than the given element.

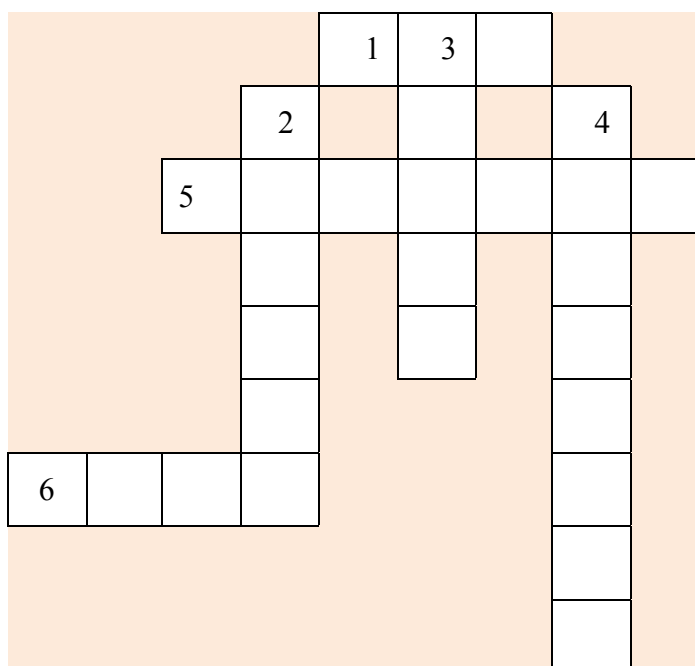
- III. Solve the crossword puzzle.** 5 Mins

Across

1. A charged particle
5. Neutral particles present in the nucleus of an atom
6. Basic unit of an element

Down

2. Latin name for iron
3. 8 electrons in the outermost shell of an atom
4. Two or more elements present in fixed ratio by mass



IV. Identify the state of matter:-

5 Mins

1. Takes the shape of the container
2. Expands least on heating
3. Has least density
4. Occupies the whole free space available
5. Maximum intermolecular space present
6. Maximum intermolecular force of attraction

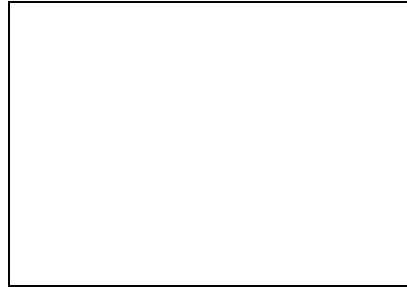
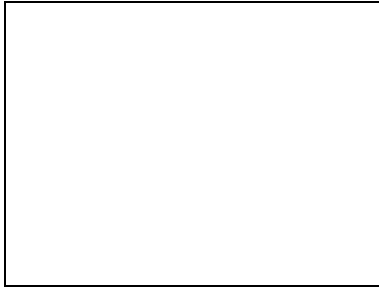
**Class VIII
BIOLOGY
WORKSHEET-1**

TIME: 30 minutes

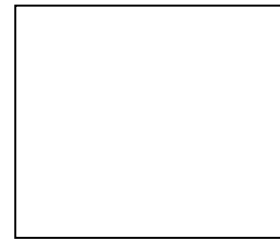
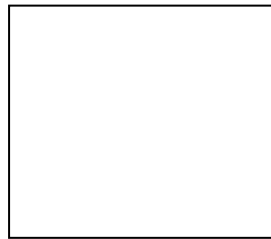
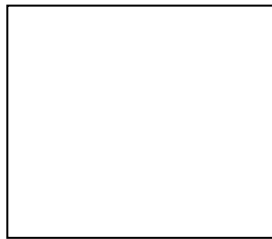
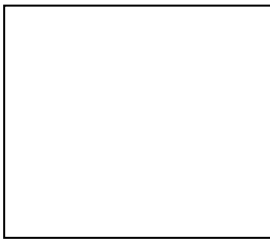
FIRST AID

It is an immediate help or care given to victim of an accident or sudden illness before he or she is taken to doctor. It can be given on cases like burns, bleeding, sudden illness, fracture etc.

1) Draw and colour **the First aid sign** and **The Star of life sign** in the boxes given below.



2) List and draw some contents of a first aid box.



3) What First Aid would you suggest for:

A) CUTS: _____

B) BURNS: _____

C) FRACTURES : _____

D) CHOKING: _____

