



## **HOLIDAY HOMEWORK CLASS VIII**

### **MATHEMATICS ACTIVITY**

1. Measure the length of your pencil in centimeters. Convert the length into kilometers and then express in standard form.
2. Measure the weight of a marble (in g) and express it in standard form (in kg).
3. Construct a  $4 \times 4$  magic square using numbers from 8 to 123, so that sum of each row, each column and each diagonal is same.
4. Survey 20 families of your neighbourhood and find the no. of students studying in primary school. Secondary school senior secondary school.
  - a) Represent the data using a bar graph.
  - b) A student selected randomly, what is the probability that the student studying in primary school.
5. Practise rubik's cube.



**1. Tick (✓) the correct answer for each of the following:**

- (i) Commutativity in rational numbers holds under 1  
(a) addition and subtraction (b) addition and multiplication  
(c) addition and division (d) all four basic operations
- (ii)  $-\frac{3}{8}$  is the additive inverse of 1  
(a)  $\frac{3}{8}$  (b)  $\frac{8}{3}$  (c)  $-\frac{8}{3}$  (d) 1
- (iii) The value of  $\left|5 - \frac{21}{4}\right|$  is 1  
(a)  $\frac{-1}{4}$  (b)  $\frac{1}{4}$  (c) 5 (d)  $\frac{41}{4}$
- (iv) The standard form of  $-\frac{36}{-108}$  is 1  
(a)  $\frac{-36}{108}$  (b)  $\frac{-3}{9}$  (c)  $\frac{1}{-3}$  (d)  $\frac{-1}{3}$
- (v) The product of two numbers is  $-\frac{3}{25}$ . If one of the numbers is  $\frac{5}{12}$ , the other is 1  
(a)  $\frac{-1}{20}$  (b)  $\frac{-36}{125}$  (c)  $\frac{36}{125}$  (d)  $\frac{89}{300}$

**2. Fill in the blanks:**

- (i) The multiplicative inverse of the rational number  $\frac{-a}{b}$  is 1
- (ii) For rational numbers  $a, b, c$ ,  $a \times (b + c) =$  1
- (iii) The rational number which is equal to its additive inverse is 1
- (iv)  $x \div (x - x)$  is 1 for any rational number  $x$ .
- (v) 1 is the 1 of rational numbers.

**3.** (i) Any number of the form  $\frac{p}{q}$  where  $p$  and  $q$  are integers is a rational number. State true or false and justify your answer.

(ii) 1 is the only rational number which is equal to its multiplicative inverse. State true or false and justify your answer.

(iii) Represent  $\frac{11}{8}$  on a number line.  $2 \times 3 = 6$

**4.** (i) Evaluate:  $\frac{3}{7} + \left(\frac{-6}{11}\right) + \left(\frac{-8}{21}\right) + \frac{5}{22}$ .

(ii) Insert six rational numbers between  $(x - y)^{-1}$  and  $x^{-1} - y^{-1}$ , where  $x = \frac{1}{4}$  and  $y = \frac{3}{7}$ .

(iii) The perimeter of a rectangle is  $26\frac{3}{4}$  m. If its length is  $7\frac{5}{8}$  m, find its breadth.  $3 \times 3 = 9$





**1. Tick (✓) the correct answer for each of the following:**

(i) The value of  $\left(\frac{3}{10}\right)^{-3} + \left(\frac{3}{10}\right)^{-9}$  is

1

(a)  $\left(\frac{3}{10}\right)^{-12}$

(b)  $\left(\frac{3}{10}\right)^6$

(c)  $\left(\frac{3}{10}\right)^{-6}$

(d)  $\left(\frac{10}{3}\right)^{-6}$

(ii) The expression  $(1^0 + 2^0) \times 3^0$  is equal to

1

(a) 0

(b) 1

(c) 2

(d) 3

(iii) The number 0.00003987 can be written in standard form as

1

(a)  $3987 \times 10^{-8}$

(b)  $3.987 \times 10^5$

(c)  $3.987 \times 10^{-5}$

(d)  $39.87 \times 10^{-6}$

(iv) The reciprocal of  $\left(\frac{8}{5}\right)^{-4}$  is

1

(a)  $\left(\frac{5}{8}\right)^{-4}$

(b)  $\left(\frac{5}{8}\right)^4$

(c)  $\left(\frac{1}{8}\right)^{-4}$

(d)  $\left(\frac{1}{5}\right)^{-4}$

(v) If  $x = \left(\frac{3}{7}\right)^{-3}$ , then  $x^{-2}$  equals

1

(a)  $\left(\frac{3}{7}\right)^{-2}$

(b)  $\left(\frac{3}{7}\right)^9$

(c)  $\left(\frac{3}{7}\right)^6$

(d)  $\left(\frac{3}{7}\right)^{-6}$

**2.** (i) The value of  $a^0 = 1$  for all integers  $a$ . State true or false and justify your answer.

(ii) Expand 109.386 using exponents.

(iii) Find the value of  $(3^0 + 4^{-1}) \times 2^2$ .

$2 \times 3 = 6$

**3.** (i) Evaluate:  $\left\{ \left(\frac{1}{3}\right)^{-1} - \left(\frac{1}{4}\right)^{-1} \right\}^{-1}$ .

(ii) Find  $m$  so that  $(-5)^{3m-1} \times 25 = (-5)^{-8}$ .

$3 \times 2 = 6$

**4.** (i) The mass of earth is  $5.97 \times 10^{24}$  kg and mass of moon is  $7.35 \times 10^{22}$  kg. What is the total mass?

(ii) By what number should  $\left(\frac{-5}{7}\right)^3$  be divided so that the quotient may be  $\left(\frac{5}{7}\right)^{-2}$ ?

$4 \times 2 = 8$





**1. Tick (✓) the correct answer for each of the following:**

(i) Which of the following numbers would not have digit 4 at units place?

1

(a)  $64^2$

(b)  $72^2$

(c)  $78^2$

(d)  $102^2$

(ii) Which of the following numbers cannot be a perfect square?

1

(a) 1600

(b) 468

(c) 961

(d) 2116

(iii) 1875 is not a perfect square. The smallest number by which it should be divided so that the quotient is a perfect square is

1

(a) 5

(b) 2

(c) 7

(d) 3

(iv) The square root of 23.04 is

1

(a) 4.2

(b) 0.42

(c) 0.48

(d) 4.8

(v) The number of digits in the square root of 390625 is

1

(a) 3

(b) 4

(c) 5

(d) 6

**2.** (i) The sum of any two consecutive positive integers is the perfect square of a number. State true or false and justify your answer. Is the converse of the statement true?

(ii) Estimate the value of  $\sqrt{350}$  to the nearest whole number.

(iii) Is 2527 a perfect square? Give reason.

$$2 \times 3 = 6$$

**3.** (i) Find a pythagorean triplet whose one number is 15.

(ii) Find the square of 216 without actual multiplication.

$$3 \times 2 = 6$$

**4.** (i) Find the smallest whole number by which 10580 should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained.

(ii) Find the greatest 6-digit number which is a perfect square.

$$4 \times 2 = 8$$



## **SCIENCE**

1. Make a report on arrival and departure of migratory birds in India, in your science activity file along with pictures, distance travelled and country of origin.
2. Visit a Botanical Garden in Delhi - e.g. Rose garden, botanical garden, Noida. Click pictures and also write a small report.
3. Collect science related articles from newspaper and stick in the activity file.

## **हिन्दी ग्रीष्मावकाश कार्य**

1. मुंशी प्रेमचंद द्वारा रचित 'मानसरोवर' भाग-4 व 5 पुस्तक के पढ़ने के पश्चात किन्हीं पाँच कहानियों के मुख्य पात्रों के नाम व कहानी का सार अपनी 'सुलेख पुस्तिका' में लिखें।
2. प्रतिदिन हिंदी समाचार पत्र पढ़ें।
3. लेखिका शिवानी की प्रमुख रचनाओं के नामों की सूची बनाइए।
4. पाठ्य- पुस्तक में से समस्त शब्द भण्डार स्मरण करें।

## **संस्कृत ग्रीष्मावकाश कार्य**

1. दो योगासनों के बारे में संस्कृत में 5-5 वाक्य (सचित्र)।
2. पर्यावरण संबंधित चित्रों को एकत्रित करके। प्रत्येक चित्र के विषय में संस्कृत में 5-5 वाक्य लिखिए।

## **GERMAN**

1. Learn Vocabulary related to following topics:-

Freizeit Aktivitäten	Gesundheit
Schule	Familie and Freund
Gegenteile	Wetter
Essen and trinken	Reisen
2. Lese Verstehen Arbeitsbuch Seite Nr. 10, Seite Nr. 24 Seite Nr. 35
3. Revise all work done in class

## **SPANISH**

1. Find information on one of the Spanish speaking countries and prepare for JAM ( Just a Minute Activity)



# CONVENT OF JESUS AND MARY

## NEW DELHI

contact@cjmdelhi.com

www.cjmdelhi.com

### **ENGLISH**

1. Read as many books as you can from the given list and maintain a vocabulary list and use the dictionary to find the meanings. This will improve your reading and writing skills.

Skippping Christmas by John Grisham	To Sir With Love by E.R Braithwaite
Diary of Anne Frank	The Chronicles of Narnia by C.S Lewis
Pride and Prejudice by Jane Austen	

2. Try and read one or two newspaper articles every day.
3. Try and watch some of the movies listed below to improve your listening skills.

My Fair Lady	Candy Jar
Chariots of Fire	Back to the Future
High School Musical	Children of Heaven
Roman Holiday	Queen of Katwe
The King's Speech	

**Listen to some of the songs from the selection given below**

Believe in Yourself	Rise up –Jojo
Flashlight - Jessie J	Safe and Sound
How Far I'll Go	School Day- Chuck
Make a Difference- Linda Dawis	Skyscraper-Demi Lovato
Never Give Up- Bang Guk & Zelo	Teacher- Jethro Tull
Never Miss a Beat- Kaiser Chiefs	Thanks to You- Tyler Collin
Never Say Never- Justin Bieber	The Climb- Miley Cyrus
Put it out for Good- Amy Ray	We are Unity
Revelation- Kari Jobe	Who Says- Selena Katina
	You Rise me Up- Josh Gorban



## **SOCIAL SCIENCE**

(a) As instructed in the class, the students would prepare a PPT on the following topics:

- Group 1- Making of the constitution-(Who made our constitution, composition of constituent assembly, key personalities, how was it made?, when did it come into effect?)
- Group 2- Federalism-(it's meaning, why was it adopted?, division of power between different levels of government, which government has more power and why?)
- Group 3- Parliamentary form of government-(definition, importance, how is the government formed in this system?, how is it different from the Presidential form of government?)
- Group 4- Separation of powers-(3 organs of the government, their functions, necessity and importance of powers)
- Group 5- Fundamental Rights-(meaning, various Fundamental Rights with examples, and their importance for citizens)

(b) As aware and concerned citizens of the country introspect about the contribution of practices/beliefs/ideologies to words making of a just and secular society. In your capacity as a student what can you do to improve the current scenario?