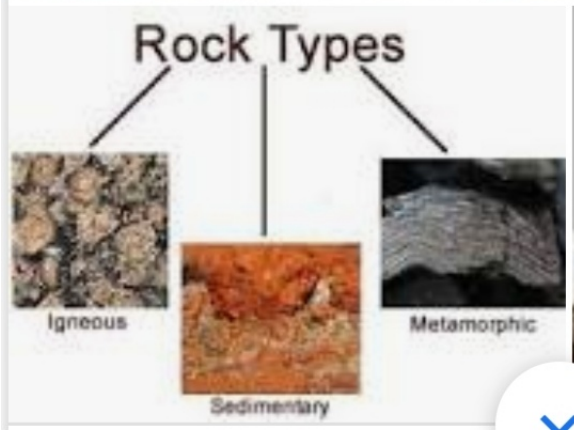
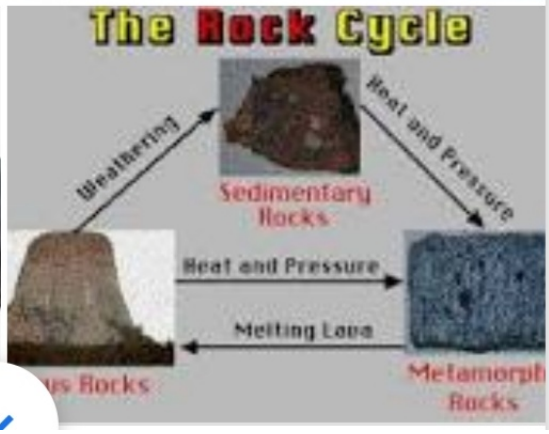
**(Mon) 4/5/20, Cl-IX, Geo**

**Ch-6 Topic (Sedimentary, Metamorphic Rocks)**

**Home Assignment...**

1) What are sedimentary rocks?
2) How are they formed?
3) Name the agents involved in the formation of sedimentary rocks?
4) Name the different types of sedimentary rocks.Give example if each type.
5) Define Metamorphic Rocks


.....(To be continued next class.....)

**(Mon) 4/5/20, Cl-IX, EVS,**

**Ch-5 Topic (Removing Contaminants from Water)**

**Home Assignment...**

1) How are contaminants removed from water?
2) How do you treat contaminated water?
3) How do you purify chemically contaminated water?
4) What is the most dangerous water contaminant?
5) What is "Methemoglobinema"?

.....(To be continued next class....)

Class IX

মধুসূদনের প্রতি

মাইকেল মধুসূদন দত্ত

(কবিতা)

* "বাঙ্গালা ভাষাতে হবে
তোমার যে যোগ্য ধন?"

i) কার লেখা কোন রচনার অনুষঙ্গ?

ii) মূল গ্রন্থের নাম কি?

iii) 'তপ্ত' শব্দটির বিপরীত শব্দ কি?

iv) পংক্তি দুটির মধ্যে জীবনের কোন্ সত্য প্রকাশিত হয়েছে?

(উত্তর)

i) আলোচ্য অংশটি মধুসূদন দত্তের 'মধুসূদনের প্রতি' কবিতা থেকে নেওয়া হয়েছে।

ii) মূল গ্রন্থের নাম হল—'প্রেমদাসের অপ্রকাশিত কবিতাবলী'।

iii) 'তপ্ত' শব্দটির বিপরীত শব্দ হল 'মৃদু'।

iv) কবি মধুসূদন দত্ত আলোচ্য পংক্তি দুটির মধ্যে জীবনের চিরন্তন সত্যকে তুলে ধরেছেন, সেটি হল — মানুষ পরিবর্তনশীল, সাথে সাথে প্রকৃতির নিয়মে তাকে মৃত্যুবরণ করতেই হবে।

H.W রচনা: বাংলার মৃদু বৈচিত্র্য

**MATHEMATICS**

**(RATIONAL AND IRRATIONAL NUMBERS)**

**CLASS-9**

**ASSIGNMENT:- DATE:-04.05.20**

**Any number that can be expressed in the form of $\frac{p}{q}$, where p and q both are integers and q≠0 is called a rational number. The word rational comes from ratio, thus every rational number can be written as the ratio of two integers.**

**A number that can not be expressed in the form of $\frac{p}{q}$, where p and q both are integers and q≠0 and p and q have no common factors except 1, is called a irrational number.**

**EXAMPLE 1:-Rationalise the denominator.**

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(i) $\frac{4\sqrt{3}+5\sqrt{2}}{\sqrt{48}+\sqrt{18}}$ (ii) $\frac{2}{\sqrt{5}+\sqrt{3}+2}$

Solution. (i) $\frac{4\sqrt{3}+5\sqrt{2}}{\sqrt{48}+\sqrt{18}} = \frac{4\sqrt{3}+5\sqrt{2}}{\sqrt{48}+\sqrt{18}} \times \frac{\sqrt{48}-\sqrt{18}}{\sqrt{48}-\sqrt{18}} = \frac{(4\sqrt{3}+5\sqrt{2})(4\sqrt{3}-3\sqrt{2})}{(\sqrt{48})^2-(\sqrt{18})^2}$

$$= \frac{16\times 3 - 12\sqrt{6} + 20\sqrt{6} - 15\times 2}{48-18} = \frac{18+8\sqrt{6}}{30} = \frac{9+4\sqrt{6}}{15}.$$

(ii) $\frac{2}{\sqrt{5}+\sqrt{3}+2} = \frac{2}{(\sqrt{5}+\sqrt{3})+2} \times \frac{(\sqrt{5}+\sqrt{3})-2}{(\sqrt{5}+\sqrt{3})-2}$

$$= \frac{2(\sqrt{5}+\sqrt{3}-2)}{(\sqrt{5}+\sqrt{3})^2-2^2}$$

$$= \frac{2(\sqrt{5}+\sqrt{3}-2)}{5+3+2\sqrt{5}\sqrt{3}-4} = \frac{2(\sqrt{5}+\sqrt{3}-2)}{4+2\sqrt{15}}$$

$$= \frac{\sqrt{5}+\sqrt{3}-2}{2+\sqrt{15}} = \frac{\sqrt{5}+\sqrt{3}-2}{2+\sqrt{15}} \times \frac{2-\sqrt{15}}{2-\sqrt{15}}$$

$$= \frac{2\sqrt{5}+2\sqrt{3}-4-\sqrt{5}\sqrt{15}-\sqrt{3}\sqrt{15}+2\sqrt{15}}{2^2-(\sqrt{15})^2}$$

$$= \frac{2\sqrt{5}+2\sqrt{3}-4-5\sqrt{3}-3\sqrt{5}+2\sqrt{15}}{4-15}$$

$$= \frac{-\sqrt{5}-3\sqrt{3}-4+2\sqrt{15}}{-11} = \frac{\sqrt{5}+3\sqrt{3}-2\sqrt{15}+4}{11}.$$

**EXAMPLE 2:-**

Example *Simplify:* $\frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}} + \frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}}$.

Solution. $\frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}} = \frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}} \times \frac{\sqrt{2}-\sqrt{3}}{\sqrt{2}-\sqrt{3}} = \frac{\sqrt{12}-\sqrt{18}}{2-3} = \frac{2\sqrt{3}-3\sqrt{2}}{-1}$

$$= -2\sqrt{3} + 3\sqrt{2},$$

$$\frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}} = \frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}} \times \frac{\sqrt{6}-\sqrt{3}}{\sqrt{6}-\sqrt{3}} = \frac{3(\sqrt{12}-\sqrt{6})}{6-3} = \frac{3(2\sqrt{3}-\sqrt{6})}{3}$$

$$= 2\sqrt{3} - \sqrt{6} \text{ and}$$

$$\frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}} = \frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}} \times \frac{\sqrt{6}-\sqrt{2}}{\sqrt{6}-\sqrt{2}} = \frac{4(\sqrt{18}-\sqrt{6})}{6-2} = \frac{4(3\sqrt{2}-\sqrt{6})}{4}$$

$$= 3\sqrt{2} - \sqrt{6}.$$

$$\therefore \quad \frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}} + \frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}} = -2\sqrt{3} + 3\sqrt{2} + 2\sqrt{3} - \sqrt{6} - (3\sqrt{2} - \sqrt{6}) = 0.$$

**HOME WORK-**

1. Rationalise the denominator of the following:

   (*i*) $\frac{3}{4\sqrt{5}}$ (*ii*) $\frac{5\sqrt{7}}{\sqrt{3}}$ (*iii*) $\frac{3}{4-\sqrt{7}}$ (*iv*) $\frac{17}{3\sqrt{2}+1}$

   (*v*) $\frac{16}{\sqrt{41}-5}$ (*vi*) $\frac{1}{\sqrt{7}-\sqrt{6}}$ (*vii*) $\frac{1}{\sqrt{5}+\sqrt{2}}$ (*viii*) $\frac{\sqrt{2}+\sqrt{3}}{\sqrt{2}-\sqrt{3}}$

2. Simplify each of the following by rationalising the denominator:

   (*i*) $\frac{7+3\sqrt{5}}{7-3\sqrt{5}}$ (*ii*) $\frac{3-2\sqrt{2}}{3+2\sqrt{2}}$ (*iii*) $\frac{5-3\sqrt{14}}{7+2\sqrt{14}}$

3. Simplify: $\frac{7\sqrt{3}}{\sqrt{10}+\sqrt{3}} - \frac{2\sqrt{5}}{\sqrt{6}+\sqrt{5}} - \frac{3\sqrt{2}}{\sqrt{15}+3\sqrt{2}}$.

4. Given $a$ and $b$ are rational numbers. Find $a$ and $b$ if:

   (*i*) $\frac{3-\sqrt{5}}{3+2\sqrt{5}} = -\frac{19}{11} + a\sqrt{5}$ (*ii*) $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} = a - b\sqrt{6}$

   (*iii*) $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7}{11}b\sqrt{5}$

5. If $\frac{7+3\sqrt{5}}{3+\sqrt{5}} - \frac{7-3\sqrt{5}}{3-\sqrt{5}} = p + q\sqrt{5}$, find the value of $p$ and $q$ where $p$ and $q$ are rational numbers.

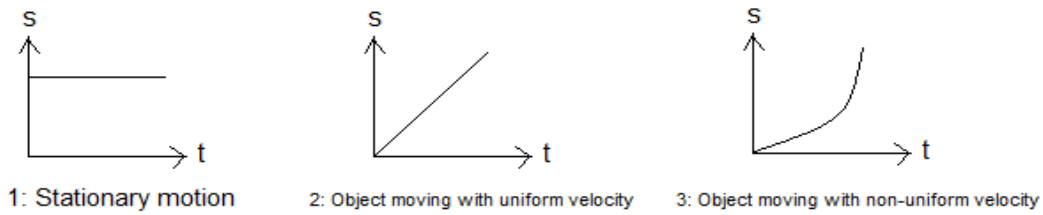
DATE-04.05.2020 (MONDAY)

CLASS-IX

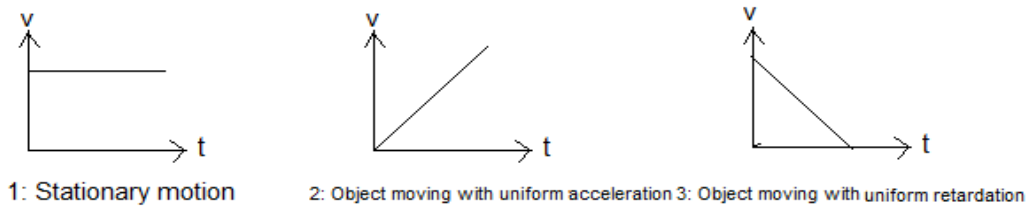
SUBJECT-PHYSICS

CHAPTER-2: MOTION IN ONE DIMENSION (2nd CLASS)

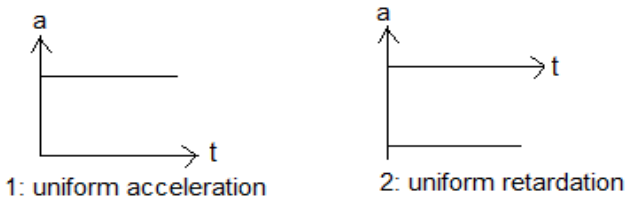
Displacement (s) vs time (t) graph




Velocity (v) vs time (t) graph




Acceleration (a) vs time (t) graph




- Equation of motions:
  (i) $v=u+at$ (for retardation $v=u-at$) (under gravity $v=u+gt$)
  (ii) $s=ut+\frac{1}{2}at^2$ (for retardation $s=ut-\frac{1}{2}at^2$) (under gravity $s=ut+\frac{1}{2}gt^2$)
  (iii) $v^2=u^2+2as$ (for retardation $v^2=u^2-2as$) (under gravity $v^2=u^2+2gs$)

  [where, u=initial velocity, v=final velocity, a=acceleration, t=time, s=displacement]

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ASSIGNMENT-8

CHAPTER-2: MOTION IN ONE DIMENSION (2nd CLASS)

(F.M.-10)

***Answer the following questions***

***(Question No-1 carries 1 mark, 2 carries 2 marks, 3 carries 3 marks, 4 carries 4 marks)***

1. Draw a displacement time graph for a stationary object.
2. How can we find the displacement from a velocity time graph.
3. Can a displacement time graph has a negative slope? Explain.
4. Prove the equations: (i) $v^2 = u^2 + 2as$

   (ii) $v = u + at$.

DREAMLAND SCHOOL
CLASS IX
ASSIGNMENT 8
ENGLISH LANGUAGE
ACADEMIC YEAR-2020-2021

Date-04-05-2020

***:SYNTHESIS:***

Combination of two or more separate sentences into one new Sentence is called Synthesis.
A **Simple Sentence** has only one finite verb. Hence, in order to combine two or more sentences into one Simple Sentence , we must use only one finite verb and do away with the others. This can be done in two ways- either by using different parts of speech or by changing the extra finite verbs into non-finite verbs.

**SIMPLE SENTENCES** can be combined into **one SIMPLE SENTENCE** as follows:

a. **By using Adjectives**-

A soldier had a horse. The soldier was brave.
*A brave soldier had horse.*

b. **By using an Adverb or Adverbial Phrase**-

The sun set. The children had not finished the game.
*The children had not finished the game by sunset.*

c. **By using an Infinitive**-

She works very hard. She wants to succeed in life.
*She works very hard to succeed in life.*

d. **By using a Participle**-

Turn to the right. You will find the bank.
*Turning to the right, you will find the bank.*

e. **By using a Noun or a Phrase in Apposition**-

Newton was a great scientist. He made many discoveries.
*Newton,a great scientist, made many discoveries.*

f. **By using a Preposition with a Noun or a Gerund**-

He is poor. He is honest.
*Inspite of being poor, he is honest.*

g. **By using an Absolute Phrase**-

The sun set. We came in.
*The sun having set,we came in.*

**COMBINATION OF SIMPLE SENTENCES INTO ONE COMPLEX SENTENCE**:

Simple sentence can be combined into Complex Sentence by using Noun Clauses, Adjective Clauses,or Adverb Clauses.

**Noun Clauses:** A noun clause is a group of words, which contains a Subject and a Predicate of its own, and does the work of a noun; as :
He told me *that the film had been cancelled* .
He told me what ? -' that the film had been cancelled.'
Therefore , it is a noun clause that does the work of a noun.
Ex- The sun rises in the east. This is obvious.
That the sun rises in the east is obvious.

**Adjective Clauses**: Simple Sentences may be combined into one Complex Sentence by introducing an Adjective Clause using *who,whom, whose* or *which*, and the Relative Adverb, *where* or *why*; as :
Ex- My aunt met her neice. She is now a teacher.
My aunt met her niece , who is now a teacher.

**Adverb Clauses**: Two or more Simple Sentences may be combined into one Complex Sentence by introducing Adverb Clauses, using *Subordinating Conjunctions* as : *if,since, because, unless, when, whose, while, though, as, until, before*; as:
Ex- The bell rang . The classes began.
When the bell rang, the classes began.

JOIN THE FOLLOWING SENTENCES WITHOUT USING '*and,but,so*'

1. My grandfather is very old. He is very active.
2. Mala is not in the classroom. Mala is not in the library.
3. He has learnt to cycle. He has yet to learn to swim.
4. The child helped her mother to make breakfast . She washed the gingers.
5. They bought a new car. They can travel long distances.
6. Suni opened her purse. She found the money missing.
7. Rahul has been ill for a month. He stood first in the examination.
8. Emma fractured her arm. She insisted on playing the match .
9. Her grandfather gifted her a paint box. He knew she was good at art.
10. He is good at gymnastics. His handwriting must improve.
11.He escaped from the prison. He looked for a place where he could hide.
12. We had better get ready now. We may not have time to reach the airport.
13. Mr Das has been sick. He has been so since he came back from England.
14. The debating teams were very happy. Both were declared joint champions.
15. I finished my homework. I switched on the television.

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