Online Class Study Material

Class : IV

Sub : Maths

Lesson: Time

Date. : 12/05/2020

.....

Do you know we use two different types of clock to see the time?

Yes , the first type is a 12 hour clock which we use in general and second type is a 24 hour clock which is also known as digital clock.

In a 12 hour clock ,the hands of clock takes two rotations in a whole day(24hours).

And rotation divide as A.M and P.M . From midnight 12 to 12 at noon the time known as A.M and after 12 noon to midnight 12 it is P.M

Eg. (1) 10o'clock in the morning it is read as 10:00 a.m

(2) 10o'clock at night it is read as 10:00 p.m

(3) 1 o'clock in the afternoon it is read as 1:00 p.m

(4) 4 o'clock in the morning it is read as 4:00a.m

(5) 2 o'clock at night it is read as 2:00 a.m

Ques.1: write the time using a.m or p.m :

(A) 9 o'clock in the morning (B) 5o' clock in the evening.

(C) 12:30 at night. (D) 1:10 o'clock in the afternoon(E) 12:10 o'clock at night

Ques.2: write the time:

(A) 20 minutes after 4 o'clock (B) 30 minutes after 6 o'clock

= 4:20 o'clock (C) 15min after 11o'clock (D) 10 min after 9o' clock

(E) 40min before 3o'clock(F) 12min before 6 o'clock

Ques.3:Activity Time (Do these activity at your home and note the time)

(A) To fill a bucket of water.....

(B) To complete your homework .....

(C) Jump up and down.....

(D) Sweeping your room.....

(E) Skip a rope.....

ONLINE CLASS STUDY MATERIAL

Class : V

Sub : Maths

Lesson: Time

Date : 12/05/2020

.....

As in the previous class we learnt the different units of time and its conversion .Today we will solve few more next level questions regarding conversion of units of time.

1.Convert into minutes:

(A) 3hours 30minutes

Sol: 1hour =60min

= 3×60min+30min

= 180min+30min=210min

(B) 12hours 19 min

Sol: 1 hour= 60 min

= 12×60+19min

=720min +19min=739min

(C) 10hours 45min (D) 6hours 55 min (E) 14hour 40 min (F) 3hr 25min

2.change into seconds:

(A) 13minute 4 second

1min= 60sec

=13×60sec+4sec

=780sec+4sec =784sec

(B) 25 min 40sec (C) 4min 22sec

(D) 36min 18 sec (E) 6hours

3.Fill in the blanks:

(A) 3hours=.....min.

(B) 6min=.....sec.

(C) 7days=.....hours.

(D) 5weeks=.....days

(E) 1year=.....days

(F) 1month=.....days

Dr. Shakeel Olayee
General Secretary
Bazm-e-Qalamkaar-Gaya
(A Literary Forum)
M.A (Urdu & Hist)
B.Ed., M.Ed., Ph.D
New Kareemganj - Gaya (823001)
Contact No. : 9631050813

ڈاکٹر شکیل علائی
جنرل سکریٹری، بزم قلمکار، گیا (ادبی فورم)
ایم اے (اردو، تاریخ)
بی ایڈ، ایم ایڈ، پی ایچ ڈی
نیو کریم گنج۔ گیا (۸۲۳۰۰۱)
فون نمبر: ۹۶۳۱۰۵۰۸۱۳

Ref. No..... Date.....

Some Quotations from the Holy Book QURAAN SHARIEF.

- O God! Bless me with higher learning.
- God Bestowed upon us the high sense of Wisdom and Learning.
- O, God! Bless us with the high Values of learning.
- O, Rahman (The Almighty) give us the high Sacred teachings of the Holy Quraan.
- O, God! Enlighten us to treat the straight path for which we have been promised with "YOUR" Noble Rewards.

I am "the" Shakeel Olayee.

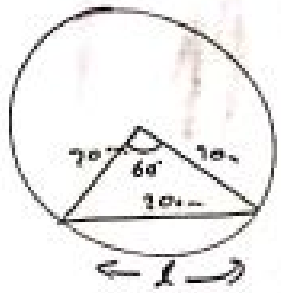
Scanned with CamScanner

Class :- XI 12th May 2020, (Mathematics)

Q 5) $d = 40\text{cm}$, $\Rightarrow r = 20\text{cm}$

chord $= 20\text{cm}$

$l = ?$



$\because$ Δ is a equilateral triangle

$\therefore$ $\theta = 60°$

$\theta^c = 60 \times \frac{\pi}{180}$

$\theta^c = \left(\frac{\pi}{3}\right)$

$l = \theta^c \cdot r$

$l = \frac{\pi}{3} \times 20\text{cm}$

$l = \frac{3.14}{3} \times 20\text{cm}$ (1.046)

$l = 20.92\text{ cm}$

$l = 21\text{cm}$

$30° = \frac{\pi}{6}$

$45° = \frac{\pi}{4}$

$60° = \frac{\pi}{3}$

$90° = \frac{\pi}{2}$

$120° = \frac{2\pi}{3}$

$135° = \frac{3\pi}{4}$

$150° = \frac{5\pi}{6}$

$180° = \pi$

$210° = \frac{7\pi}{6}$

Class :- XI

12th May 2020, (Mathematics)

Radian

$$\theta^\circ = \frac{l}{r}$$

$$r = \frac{l}{\theta^\circ}$$

$$l = \theta^\circ \cdot r$$

4) $r = 100\text{ cm}$

$l = 22\text{ cm}$

$$\theta^\circ = \frac{l}{r}$$

$$\theta^\circ = \frac{22\text{ cm}}{100\text{ cm}}$$

$$D = \left(R \times \frac{180}{\pi}\right)$$

$$\theta^\circ = \left(\frac{22}{100} \times \frac{180}{\pi}\right)$$

$$\theta^\circ = \frac{22}{\cancel{100}_{5}} \times \frac{\overset{9}{\cancel{180}}}{\cancel{22}} \times 7$$

$$\theta^\circ = \left(\frac{63}{5}\right)^\circ$$

$$\theta^\circ = \left(12\frac{3}{5}\right)^\circ$$

$$= 12^\circ \left(\frac{3}{5} \times \overset{12}{60}\right)'$$

$$\theta = 12^\circ 36'$$

Mole

CHEM
12.05.2020

1. Gram molecular mass of any element or compound contains the no. of molecules equal to avogadro number i.e. 6.022×10^{23}
2. The volume occupied by any gms of gram molecular mass of any gas at N.T.P is equal to 22.4 litre.

Conclusion

1 Mole = 6.022×10^{23}

1 Mole atoms = Gram atomic mass

1 Mole molecule = Gram molecular mass.

Volume of 1 Mole molecule of any gas at N.T.P = 22.4 litre

N.T.P = Normal temperature and Pressure

Normal temperature = $0^{\circ}C$ (273K)

Normal Pressure = 1 Atm

= Pressure exerted by 76 cm Hg - column.

= Pressure exerted by 760 m.m Hg col.

Numerical:

Q: Find the number of moles in

(a) 6 gm hydrogen gas (b) 4.4 gm CO_2

A: (a) In gaseous state hydrogen remains in molecular form.

1 Mole hydrogen (H_2) = 2 gm

∴ 2 gm H_2 = 1 Mole

6 " " = $\frac{1}{2} \times 6$ = 3 Mole

(b) 1 Mole CO_2 = 12 + 32 = 44 gm

44 gm CO_2 = 1 Mole

4.4 " " = $\frac{1}{44} \times 4.4$ = 0.1 Mole

No. of Moles (n) = $\frac{\text{Mass}}{\text{Molecular mass}}$

Foundation Class

Class - XI Sub: CHEM 11.05.2020

Mole concept

1. Atomic mass unit (a.m.u)
It is the mass of C^{12} atom is called atomic mass unit.

$$1\ a.m.u = \frac{\text{Mass of } C^{12} \text{ atom}}{12}$$

2. Atomic mass = A number which indicates that one atom of an element is how much times heavier than $\frac{1}{12}$th the mass of C^{12} atom.

H = 1.008 u Mg = 24 a.m.u K = 39 a.m.u
He = 4 " Al = 27 " Ca = 40 "
C = 12 " P = 31 " Fe = 56 "
N = 14 " S = 32 " Ag = 108 "
O = 16 " Cl = 35.5 " I = 127 "
Na = 23 "

3. Gram molecular mass or Gram molecule
When molecular mass is expressed in gram then it is called gram molecular mass or gram molecule.
Gm. M. M of H = 1 gm
Gm. M. M of O = 16 "

* Note: Gram molecular mass of any element contains the number of atoms equal to Avogadro number (6.022×10^{23})

4. Molecular mass: The sum of atomic masses of all the atoms present in a molecule of an element or compound is called molecular mass.
Mol. mass of H_2 = 2 a.m.u
Mol. mass of O_2 = 16+16 = 32 a.m.u
Mol. mass of H_2O = 2+16 = 18 "

5. Gram molecular mass: when molecular mass is expressed in gram then it is called gram molecular mass.
gram molecular mass of H_2O = 18 gm.

English. Class X B & D 12/5/2020

Frit Flight

The Black Aeroplane

to leave the plane unattended & go to the control centre to inquire about the mysterious plane which had helped him out of the storm.

H.W

Q 1) What made the woman in the control centre look at the narrator strangely?

MD FARRUKH ALAM

ENGLISH

CLASS X B C D 12/5/2020

Unit Flight

The Black Aeroplane

By Fredrik Forsyth

Long Question

The narrator knew that he could not fly up due to storm & lack of fuel but still, he continued. What kind of person was he? Was it not in his nature to accept defeat? Discuss the values we should possess to accept failures to be able to move ahead in life.

Ans. The author's plane did not have enough fuel. He knew that because of the fuel he could not fly up & over the clouds. Nor he could fly around them to the north or south. But then he decided to take the risk to enter his plane in the clouds because he wanted to get home & wanted to join his family at breakfast. This shows that he was a family-loving person. He was courageous as he knew that it would be risky to enter the clouds, but he did so in order to save his fuel.

Question: Why does the narrator say, "I landed & was not sorry to walk away from the old Dakota ---"?

Ans. The narrator had landed at an unknown place as his compass & radar had stopped functioning in the storm. He was not scared

MD FARRUKH ALAM

ENGLISH CLASS IX B & D 12/5/2020

Beehive (POEM)

The Road Not Taken by Robert Frost.

Stanza II

The poet kept on looking at one path for a long time to check if it is the right path for him or not & then he decided & started walking on another path because he felt that the both paths were equally good. He says just as fair, so he felt that both paths were equally good & started walking on one of them. He adds that maybe he felt that the path was better for him so he so choose it as it had grass on it which means that it was unused. Not many people had walked on this path was grassy and wanted wear, means that it was not walked over by many people. After he walked on the path for some distance, he realised that both the paths had been worn out the same way. Both the paths were similar & worn out. Even in our life, we take any path or option but all of them have the same benefits, disadvantages, problems, challenges & we must face them. We think that we are choosing a better option, but it is not that way.

H.W Q.) Where does the traveller find

Date :- 12-09-2020
Class :- 6 (A/B/C)
Sub :- English
Page :- 5 - A Different kind of School
(.....Continued from the back)

But, Miss Beam ✱ bursts into a laughter. She explains the children are not lame or blind. She said the actors that they are playing their parts of Blind Boy and Lame Boy. They ✱ understand and appreciate the difficulties of the blind/crippled, etc. She made them aware of the misfortune.

Then, Miss Beam let the narrator meet the bandaged girl. The narrator led for a walk by the girl. The girl was asked several question ~~then~~ about surrounding things. She replied to him very well. Here, the narrator discovered that he had become ten times more thoughtful than he ever thought he could be. When, he was leaving, he told Miss Beam that he felt sorry to leave her school. She was delighted to realize that her system of teaching was effective.

H/W

Q1 → What was the purpose of these special days?

Q2 → Why do you think the writer visited Miss Beam's School?

Q3 → Which day the children find the worst? Why?

Q4 → What did the narrator feel at the end?

Date 22.03.21 (Monday)
Class — 7 A
Sub: English
CHAPTER (8) — The Artist That Made Them Glorious
(Continued)

They also wanted to become rich like the kind couple. They also wanted Mukto (the dog) to find a treasure for them. But, for their disappointment, there was nothing but a dead rotten. The evil man became angry and beat Mukto to death. The owners of Mukto mourned his death and put flowers and incense sticks on the dog's grave. Mukto's spirit appeared in the dream that night and asked the owners to cut the pine tree over his grave and make from it a ~~mortar~~ mortar for rice pastry and a magic mill for bean sauce. The kind fellow followed the dog-spirit's instruction. The mass of dough made for making the pastry suddenly changed into gold coins. The old couple was rich again. The evil neighbours had noticed this. They borrowed the mortar and the magic mill, but, to their disappointment, their pastry and sauce turned into worms. So they cut the mill into pieces and burnt it.

H/W

Q1 → Why did the neighbours kill the dog?
Q2 → In what way did the old couple express their love towards the dog?
Q3 → What happened when the greedy couple borrowed the Mortar and the magic mill?

Date : 12.07.2020
Sub. English
Class VIII 'C'

Chapter 7 - Bepin Choudhury's Lapse of Memory
(Ruskin Bond)

Part - III

Bepin Babu could not concentrate on his work in office. He was a hard-working conscientious worker. He found it utterly impossible that not one incident related to Ranchi could be remember. He left for home early and lay in his bed to gather his thoughts together.

His old friend Chuni Babu came to see him. He was his school-mate and now he was looking for a job and wanted his favour from Bepin Babu But Bepin Babu knew that it was impossible to do anything for Chuni Babu. As he declined to see him, the thought struck Bepin Babu that Chuni Babu might Remember something about that Ranchi trip. Chunni recalled that it was he who had done his railway booking for Ranchi and had seen him off at the Station.

This came as a blow to him and he decided to see the doctor about his memory lost considering this as a serious matter. He consulted a physician, Dr. Amal Chanda, who suggested him to go to Ranchi. It might work to get back his lost memory. The same evening, Bepin Babu left for Ranchi

Q1 → Who was Chunilal? What did he want from Bepin Babu?

Q2 → How did Dr. Chanda help Bepin Babu?

Q3 → What was Bepin's reputation in his office?

Active: Can he drive a car?
(Interrogative)

Passive: A car cannot be driven by him.

Active: Can a car be driven by him?
(Interrogative)

Active - Must Passive - Must be

Active: He must learn this book.

Passive: This book must be learnt by him.

Active: He must not learn this book.
(Negative)

Passive: This book must not be learnt by him.

Active: Must he learn this book?
(Interrogative)

Passive: Must this book be learnt by him.

Active - Might Passive - Might be

Active: She might kill the snake.

Passive: The snake might be killed by her.

Active - She might not kill the (Negative) snake.

P.T.O.

Active: She may not eat an apple.
(neg)

Passive: An apple may not be eaten by her.

Active: May she eat an apple?
(int)

Passive: May an apple be eaten by her?

Active: ought Passive - ought to be

Active: You ought to help her.
Passive: She ought to be helped by you.
Active: You ought not to help her.
(neg)

Passive: She ought not to be helped by you.

H.W.
12.05.20

Provide the following sentences putting the verbs given against them in the appropriate passive voice.

Passive: The snake might not be killed by her.

(i.) Active: might she kill the snake?

Passive: might the snake be killed by her.

(i.e.)

Active — Should Passive: Should be

Active: I should buy this clock.

Passive: This clock should be bought by me.

Active: I should not by this clocks.

(i.e.)

Passive: This clock should not be bought by me.

Active: Should I buy this clock?

(i.e.)

Passive: Should this clock be bought by me.

Active: May Passive: May be

Active: She may eat an apple.

passive: An apple may be eaten by her.

12 May, 2020

Grade - X 'A' & 'C'
Subject - English

Literature Section

Question / Answer

'The Ball Poem'

Ques 9. Why did the poet not offer the boy money to buy another ball?

Ans. The poet watched the boy who had plunged in grief at the loss of his ball. He did not offer the boy money to another ball could not console the boy. It seemed that the boy had the ball for a long time. The poet also wanted the boy to realise the epistemology of loss.

Ans. 10. 'He senses first responsibility' - What responsibility is referred to here?

P.T.O.

loss. But dear friends. "Tears are sacred from a sense of loss. This is experienced by everyone in life. That is why the poet says 'Gains can be told always."

Ques.13. How did the poet witness the comic scene of the boy losing his ball?

Ans. The poet saw the boy playing with his ball. While he was playing with it, the ball bounced down the street 'merrily'. And then the most unexpected thing happened. Falling down the street and after having a few bounces, finally the ball fell down in the water of the harbour below.

H.W
17/05/20

Write all the question/answer in your literature book (copy side wise.

Ashish Saini
17/05/20

form.

1. She ____ up by her aunt. (bring)
2. Invitation cards ____ to all her friends. (send)
3. You will ____ to the feast. (invite)
4. The result ____ on Monday. (declare)
5. My ____ at the report of the gun. (alarm)
6. We ____ at his failure. (shock)
7. Rice ____ in many parts of the world. (grow)
8. The political prisoners ____ tomorrow. (release)
9. Sweets ____ among the students. (distribute)
10. The ____ next month. (conduct)
11. You ____ of our decision on Sunday next. (inform)
12. When I reached the hall, the picture ____ (screen).

Amin Sir
12/05/20

Ans. The responsibility referred to here is how to stand up or bear the loss through self-understanding and trying to console oneself as the boy who lost his ball was trying to do.

Ques 11. ~~What does the poet~~

What does the poet notice at the beginning of the poem?

Ans. The poet sees a boy playing near a harbour with a ball. The poet saw his ball bouncing. It bounced and fell into the water of the harbour. The boy lost his ball. He became very sad.

Ans 12. Why does the poet say "Some balls will be lost always"?

Ans. Here balls are the symbol of many possessions. Our lives things. Some things are dearer to us than the others. But nothing is permanent in life. We may

May 12, 2020

GRADE - IX 'A' & IX 'C'

SUBJECT - ENGLISH

GRAMMAR SECTION

ACTIVE AND PASSIVE VOICE

FOREIGN PASSIVE WITH MODALS

Passive voice of Continuous and Future

Modals: (e.g. may, might, can, must, should, ought)

Auxiliary verb used in passive voice: Be

Rule: While changing into passive voice put 'Be' between the modal auxiliary and the third form of the verb. other rules will remain the same; as -

Active voice	PASSIVE VOICE
CAN	CAN BE

Examples:

Active: He can drive a car.

passive: A car can be driven by him.

Active: He cannot drive a car. (Negative)

18) $x = at^2$ and $y = 2at$, find $\frac{d^2y}{dx^2}$ at $t = 2$

Now, $x = at^2$

$\frac{dx}{dt} = a\frac{dt^2}{dt}$

$\frac{dx}{dt} = 2at$ —(i)

$\because y = 2at$

Now, $y = 2at$

$\frac{dy}{dt} = 2a\frac{dt}{dt}$

$\frac{dy}{dt} = 2a$ —(ii)

Dividing (ii) by (i), we get

$\frac{\frac{dy}{dt}}{\frac{dx}{dt}} = \frac{2a}{2at}$

$\frac{dy}{dx} = \frac{1}{t}$

$\frac{dy}{dx} = t^{-1}$

Again Now, $\frac{d}{dx}$

$\frac{d^2y}{dx^2} = \frac{dt^{-1}}{dt} \cdot \frac{dt}{dx}$

$= -t^{-2} \cdot \frac{1}{2at}$ [from (i)]

$= -\frac{1}{2at^3}$

Putting the value of t

$\frac{d^2y}{dx^2} = -\frac{1}{2a(2)^3}$

$= -\frac{1}{16a}$ //

Answer 8:

Radius of cylindrical pipe $r = 5/2$ cm $= 2.5$ cm $= 0.025$ m and length $h = 28$ m

Total surface area of cylindrical pipe $= 2\pi r(r + h)$

$= 2 \times \frac{22}{7} \times 0.025 \times (0.025 + 28) = 2 \times \frac{22}{7} \times 0.025 \times 28.025 = 4.4$ m^2 (approx.)

Hence, the total radiating surface in the system is 4.4 m^2.

Question 9:

Find **(I)** the lateral or curved surface area of a closed cylindrical petrol storage tank that is 4.2 m in diameter and 4.5 m high. **(II)** how much steel was actually used, if $\frac{1}{12}$ of the steel actually used was wasted in making the tank.

Answer 9:

(I) Radius of cylindrical petrol storage tank $r = 4.2/2 = 2.1$ m and height $h = 4.5$ m.

Curved surface area of cylindrical petrol storage tank $= 2\pi rh$

$= 2 \times \frac{22}{7} \times 2.1 \times 4.5 = 2 \times 22 \times 0.3 \times 4.5 = 59.4$ m^2

Hence, the curved surface area of cylindrical petrol storage tank is 59.4 m^2.

(II) Total surface area of cylindrical petrol storage tank $= 2\pi r(r + h)$

$= 2 \times \frac{22}{7} \times 2.1 \times (2.1 + 4.5) = 2 \times \frac{22}{7} \times 2.1 \times 6.6 = 87.12$ m^2

Let, the area of steel used to make this cylindrical petrol storage tank $= x$ m^2

Steel got wasted in preparation of petrol storage tank $= \frac{1}{12}x$ m^2

Therefore, the total steel used in cylindrical petrol storage tank $= x - \frac{1}{12}x = \frac{11}{12}x$ m^2

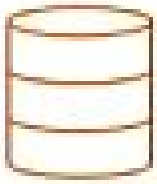
According toquestions: $\frac{11}{12}x = 87.12 \Rightarrow x = 87.12 \times \frac{12}{11} = 95.04$ m^2

Hence, 95.04 m^2 steel is required to make this cylindrical petrol storage tank.

Question 10:

In Figure, you see the frame of a lampshade. It is to be covered with a decorative cloth. The frame has a base diameter of 20 cm and height of 30 cm. A margin of 2.5 cm is to be given for folding it over the top and bottom of the frame. Find how much cloth is required for covering the lampshade.

Answer 10:



Radius of lampshade $r = 20/2 = 10$ cm and height $h = 30$ cm

The height of margin for folding to cover the top and bottom $H = 30 + 2.5 + 2.5 = 35$ cm

The total area of cloth to cover the lampshade $= 2\pi rH$

$= 2 \times \frac{22}{7} \times 10 \times 35 = 2 \times 22 \times 10 \times 5 = 2200$ cm^2

Question 11:

The students of a Vidyalaya were asked to participate in a competition for making and decorating penholders in the shape of a cylinder with a base, using cardboard. Each penholder was to be of radius 3 cm and height 10.5 cm. The Vidyalaya was to supply the competitors with cardboard. If there were 35 competitors, how much cardboard was required to be bought for the competition?

Answer 11:

Radius of each penholder $r = 3$ cm and height $h = 10.5$ cm

The penholder is open at the top, therefore, the area of cardboard for 1 penholder $= 2\pi rh + \pi r^2$

$= 2 \times \pi \times 3 \times 10.5 + \pi \times 3^2 = 63\pi + 9\pi = 72\pi$ cm^2

So, the area of cardboard for 35 penholders $= 35 \times 72\pi$ cm^2

$= 35 \times 72 \times \frac{22}{7} = 5 \times 72 \times 22 = 7920$ cm^2

So, Vidhyalaya has to purchase 7920 cm^2 cardboard for the competition.

H.W:- Exercise 13.3

By Ateef jami

Question 6:

The first and the last terms of an AP are 17 and 350 respectively. If the common difference is 9, how many terms are there and what is their sum?

Answer 6:

Here, $a = 17$, $a_n = 350$ and $d = 9$.

$a_n = a + (n-1)d$

$\Rightarrow 350 = 17 + (n-1)9$

$\Rightarrow 350 = 8 + 9n$

$\Rightarrow n = \frac{342}{9} = 38$

The sum of n terms of an AP is given by

$$S_n = \frac{n}{2}[a + a_n]$$

$\Rightarrow S_{38} = \frac{38}{2}[17 + 350]$

$\Rightarrow S_{38} = 19 \times 367$

$= 6973$

Hence, there are 38 terms and their sum is 6973.

Question 7:

Find the sum of first 22 terms of an AP in which $d = 7$ and 22nd term is 149.

Answer 7:

Here, $d = 7$, $a_n = 149$ and $n = 22$.

$a_n = a + (n-1)d$

$\Rightarrow 149 = a + (22-1)(7)$

$\Rightarrow 149 = a + 147$

$\Rightarrow a = 2$

The sum of n terms of an AP is given by

$$S_n = \frac{n}{2}[a + a_n]$$

$\Rightarrow S_{22} = \frac{22}{2}[2 + 149]$

$\Rightarrow S_{22} = 11 \times 151$

$= 1661$

Hence, the sum of first 22 terms of this AP is 1661.

Question 8:

Find the sum of first 51 terms of an AP whose second and third terms are 14 and 18 respectively.

Answer 8:

Here, $a_2 = 14$, $a_3 = 18$ and $n = 51$.

$a_n = a + (n-1)d$

$\Rightarrow a_2 = a + (2-1)d$

$\Rightarrow 14 = a + d$

$\Rightarrow a = 14 - d$ ... (1)

and $a_3 = a + (3-1)d$

$\Rightarrow 18 = a + 2d$

Putting the value of a from equation (1), we get

H.W:- 9,10,11&12

By Ateef jami

Notes

12 05 2020

Q The diameter of a roller is 84 cm and its length is 120 cm. It takes 500 complete revolutions to move once over to level a playground. Find the area of the playground in m^2.

Sol^n:

Roller is cylindrical type.

Diameter of roller = 84 cm

$$\text{Radius} = \frac{D}{2} \Rightarrow r = \frac{84}{2}$$

$$\Rightarrow r = 42 \text{ cm}$$

Length = height = 120 cm.

C.S.A of roller $= 2\pi rh$

$$= 2 \times \frac{22}{7} \times 42 \times 120$$

$$= 31680 \text{ cm}^2$$

Area of field = 500 × C.S.A of roller

$$= 500 \times 31680$$

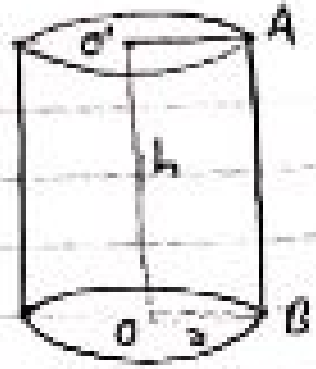
$$= 15840000 \text{ cm}^2$$

$$= 1584 \text{ m}^2$$ Ans

H.W Q It is required to make a closed cylindrical tank of height 1m and base diameter 140 cm from a metal sheet. How many square metres of the sheet are required for the same?

Q Curved surface area of a right circular cylinder is 4.4 m^2. If the radius of the base of the cylinder is 0.7 m, find its height

Notes Surface Area & Volume. 12/05/2020



OO' = Height of cylinder
OB = O'A = r = Radius.

* Curved Surface Area (C.S.A) / Lateral Surface Area (L.S.A) of cylinder = $2\pi rh$ Sq. unit.

* Total Surface Area (T.S.A) of cylinder = $2\pi r(r+h)$ Sq. unit

* Volume of cylinder = $\pi r^2 h$ cubic unit.

Q. The curved surface area of a right circular cylinder of height 14 cm is 88 cm^2. Find the diameter of the base of the cylinder.

Sol^n: Height of cylinder = 14 cm
Curved surface area = 88 cm^2

C.S.A of cylinder = $2\pi rh$

$\Rightarrow 88 = 2 \times \frac{22}{7} \times r \times 14$

$\Rightarrow r = 1$ cm

$\therefore$ Diameter = $2r = 2 \times 1$

Diameter = 2 cm Ans

11.03

Notes 12 01 2020

① Find the sum:

i) $\frac{5}{4} + \left(-\frac{11}{4}\right)$ ii) $\frac{5}{3} + \frac{7}{5}$

iii) $-2\frac{1}{3} + 4\frac{2}{5}$ iv) $-\frac{2}{3} \rightarrow$ D

v) $-\frac{8}{19} + \left(-\frac{2}{57}\right)$

② Find. i) $\frac{7}{24} - \frac{17}{36}$ ii) $\frac{5}{63} - \left(-\frac{6}{21}\right)$

iii) $-\frac{3}{8} - \frac{7}{11}$ iv) $-2\frac{1}{9} - 6$

v) $-\frac{6}{13} - \left(-\frac{7}{15}\right)$

Class VII (A+C) Roll no: 01

Notes Rational Numbers 12 05 2020

* Operations on Rational Numbers.

⇒ Addition ① $\frac{7}{3}$ and $-\frac{5}{3}$

Sol^n: $\frac{7}{3} + (-\frac{5}{3})$

$= \frac{7 + (-5)}{3}$

$= \frac{7 - 5}{3}$

$= \frac{2}{3}$ Ans

② $-\frac{13}{7}$ and $\frac{6}{7}$

$= -\frac{13}{7} + \frac{6}{7}$

$= \frac{-13 + 6}{7}$

$= -\frac{7}{7}$

$= -1$ Ans

L.C.M of 3 & 7 = 3.

⇒ Subtraction

① $\frac{5}{7}$ and $\frac{3}{8}$

$= \frac{5}{7} - \frac{3}{8}$

$= \frac{40 - 21}{56}$

$= \frac{19}{56}$ Ans

② $\frac{7}{9}$ and $\frac{2}{5}$

$= \frac{7}{9} - \frac{2}{5}$

$= \frac{35 - 18}{45}$

$= \frac{17}{45}$ Ans

Notes 12 05 2020

Q The price of a TV is Rs 13,000. The Sales tax charged on it is at the rate of 12%. Find the amount that Vinod will have to pay if he buys it.

Sol^n: On Rs 100, the tax to be paid = Rs 12

Then On Rs 13000, the tax to be paid = $\frac{12}{100} \times 13000$

= Rs 1560

Required Amount = Cost + Sales tax

= 13000 + 1560

= Rs 14560

∴ Vinod will have to pay Rs 14,560 for the T.V.

Ex

Q 1. purchased a hair-dryer for Rs 5,400 including 8% VAT. Find the price before VAT was added.

Q. During a sale, a shop offered a discount of 10% on the marked prices of all the items. What would a customer have to pay for a pair of jeans marked at Rs 1450 and two shirts marked at Rs 850 each?