Two trains start from stations A and B spaced 50 kms apart at the same time and speed. As the trains start, a bird flies from one train towards the other and on reaching the second train, it flies back to the first train. This is repeated till the trains collide. If the speed of the trains is $\mathbf{2 5} \mathbf{~ k m} / \mathrm{h}$ and that of the bird is $100 \mathrm{~km} / \mathrm{h}$. How much did the bird travel till the collision.

Ans: 100 kms.


Four prisoners escape from a prison.
The prisoners, Mr East, Mr West, Mr South, Mr North head towards different directions after escaping.The following information of their escape was supplied:
The escape routes were The North Road, South Road, East Road and West Road.
None of the prisoners took the road which was their namesake.
Mr.East did not take the South Road
Mr.West did not the South Road.
The West Road was not taken by Mr.East
What road did each of the prisoners take to make their escape?

Ans: Mr.East took the North Road Mr.West took the East Road Mr.North took the South Road Mr.South took the West Road.

8 litres are drawn from a cask full of wine and is then filled with water. This operation is performed three more times. The ratio of the quantity of wine now left in cask to that of the water is $16: 65$. How much wine the cask hold originally?

Answer: 24
a) 18 litres
b) 24 litres
c) 32 litres
d) 42 litres

LET+LEE=ALL THEN A+L+L=?
ASSUME (E=5)

Answer: 5


What is the next number in sequence $0,2,5,10,17,28$, and 41 ?
Answer: 58


ZACE
Prep

In each questions below are two statements followed by two conclusions numbered I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and decide which of the given conclusions logically follow from the two given statements disregarding commonly known facts.
Give answer
(a) If only conclusion I follows
(b) If only conclusions II follows
(c) If either I or II follows
(d) If neither I nor II follows

## Answer: a

Statements: 1. All books are pencils.
2. All pencils are pins.

Conclusions: I. Some pins are books
II. No pin is a book.

Choose the correct answer:
a) a
b) b
c) c
d) d

If $E A T+T H A T=A P P L E$, what is the value of $A+T+L$ ?

Answer: 13

a) 13
b) 14
c) 15
d) 16
'Keyboard' can be written in how many ways if all the vowels takes up odd places.

Answer: $\mathbf{2 8 8 0}$

a) 4320
b) 720
c) 3000
d) 2880

In Bangalore there are $\qquad$ opportunities.

Answer: few

a) few
b) fewer
c) less
d) lesser

Prep

A man went to the Zoo and stated that there were 90 heads and 260 legs. If the zoo had pigeons and horses only, how many horses were there?

Answer: 40

b) 90
c) 30
d) 57

Prep

25 liters of $70 \% \mathrm{HCL}$ solution is mixed with X liters of $40 \% \mathrm{HCL}$ solution to make a $50 \% \mathrm{HCL}$ solution. Find the amount of $40 \% \mathrm{HCL}$ solution added.

## Answer: 50


a) $100 ~\left[\begin{array}{l|l|l}\text { b) } 50 & \text { c) } 75 & \text { d) } 25\end{array}\right.$

Prep

## Complete the series: $5,20,24,6,2,8$, ?

Ans: 12 (as $5^{*} 4=20,20+4=24,24 / 4=6,6-4=2,2 * 4=8,8+4=12$ ).

A soldier looses his way in a thick jungle. At random he walks from his camp but mathematically in an interesting fashion. First he walks one mile East then half mile to North. Then $1 / 4$ mile to West, then $1 / 8$ mile to South and so on making a loop. Finally how far he is from his camp and in which direction.

Ans: Distance travelled in north and south directions $1 / 2-1 / 8+1 / 32-1 / 128+1 / 512-$
and so on
$=1 / 2 /((1-(-1 / 4))$
Similarly in east and west directions
$1-1 / 4+1 / 16-1 / 64+1 / 256-$ and so on $=1 /((1-(-1 / 4))$
Add both the answers

Conversation between two mathematcians:
First : I have three children. The product of their ages is 36 .
If you sum their ages, it is exactly same as my neighbour's door number on my left. The second mathematician verfies the door number and says that it is not sufficient. Then the first says " Ok one more clue is that my youngest is really the youngest". Immmediately the second mathematician answers. Can you answer the question asked by the first mathematician?

What are the childeren ages?


Ans 1,6 and 6

Light glows for every 13 seconds. How many times did it glow between 1:57:58 and 3:20:47 am.

Ans : $383+1=384$


500 men are arranged in an array of 10 rows and 50 columns according to their heights.

Tallest among each row of all are asked to fall out. And the shortest among them is $A$.

Similarly after resuming that to their original podsitions that the shortest among each column are asked to fall out.

And the tallest among them is B. Now who is taller among A and B ?

Ans A

A person with some money spends1/3 for cloths, $1 / 5$ of the remaining for food and $1 / 4$ of the remaining for travel.

He is left with Rs 100/-. How much did he have with him in the begining?

Ans: Rs 250/-

There are six boxes containing $5,7,14,16,18,29$ balls of either red or blue in colour. Some boxes contain only red balls and others contain only blue.One sales man sold one box out of them and then he says "I have the same number of red balls left out as that of blue ".

Which box is the one he solds out ?

Ans: Total no of balls $=89$ and $(89-29 / 2)=60 / 2=30$
and also $14+16=5+7+18=30$

Grass in lawn grows equally thick and in a uniform rate.
It takes $\mathbf{2 4}$ days for $\mathbf{7 0}$ cows and $\mathbf{6 0}$ days for $\mathbf{3 0}$ cows to eat the whole of the grass. How many cows are needed to eat the grass in 96 days.?

Ans: 20
g - grass at the beginning
$r$ - rate at which grass grows, per day
$y$ - rate at which one cow eats grass, per day $n$ - no of
cows to eat the grass in 96 days
$g+24^{*} r=70$ * 24 * $y$
$g+60 * r=30$ * 60 * $y$
$\mathrm{g}+96^{*} \mathrm{r}=\mathrm{n}^{*} 96^{*} \mathrm{y}$
Solving, $\mathrm{n}=20$.

There $r$ some bees in a garden..1/5th of them went to a particular flower,1/3rd went to another flower, 3 times the difference of the above two went to third flower..n one was remaining $n$ it was roaming around..how many bees were there? ( 3 marks)

Ans:15


A man drives with constant speed..n he after some time he sees a milestone with 2-digits..then he travels for an hr n sees the same 2 digits in reverse order..n then after an hr he sees that the milestone has the same 2 digits with a 0 between them..so whats the man speed?


A women buys some shoestrips $\mathbf{n}$ then 4 times of that she buys packet pins $\mathbf{n}$ then 8 times of shoestrips she buys handkerchiefs..n she has a bill of Rs3.24..n she pays for each article as many paise as there $r$ articles(of tht particular item).Now whats the number of handkerchiefs?


Ms.Anitha got her salary n she spent half of it in shopping n gave 1 RS to a beggar.After that $1 / 2$ of the remaining money she spends in a hotel $n$ she gives Rs.2/as a tip to waiter.n then $1 / 2$ of the remaining she spends again $n$ she gives 3 RS as charity..n after that finally she is left with Rs $1 /-$ when she comes out.Whats the actual money she had?

Ans : Rs 42/-


A person is cycling in a circular track. At some point he notices that $1 / 5$ of people in front of him and 5/6 of people together constitute the total no. of cyclists. Find the total no. of cyclists.


In a class there are less than 500 students . when it is divided by 3 it gives a whole number. similarly when it is divided by 4,5 or 7 gives a whole number. Find the no. of students in the class.

Ans: 420


A man walks at $4 \mathrm{~km} / \mathrm{hr}$ on plain, then at $3 \mathrm{~km} / \mathrm{hr}$ uphill and then returns through the same road at $6 \mathrm{~km} / \mathrm{hr}$ downhill and at $4 \mathrm{~km} / \mathrm{hr}$ on the plain. It takes altogether 6 hours. So what distance he covered in one way?

Ans: 12 km


There is a $\mathbf{4}$ inch cube painted on all sides. This is cut down into of 1 inch cubes. What is the no of cubes which have no pointed sides.

Ans: $8\left[(n-2)^{*}(n-2)^{*}(n-2)\right]$ where $n$ is side length of the cube

Find the values of each of the alphabets. NOON SO ON + M OO N = J U NE

Ans: 9326


If a clock takes 7 seconds to strike 7 , how long will the same clock take to strike 10?

Ans: The clock strikes for the first time at the start and takes 7 seconds for 6 intervals-thus for one interval time taken=7/6. Therefore, for 10 seconds there are 9 intervals and time taken is $9 * 7 / 6=10$ and $1 / 2$ seconds.

Father's age is three years more than three times the son's age. After three years, father's age will be ten years more than twice the son's age. What is the father's present age?

Ans: 33 years.


There are 20 poles with a constant distance between each pole. A car takes 24 second to reach the 12th pole. How much will it take to reach the last pole.

Ans: 41.45 seconds


## 522,1235,2661,4800,7652,11217 ?

A. 15495
B. 16208
C. 14782
D. 16921

Answer: Option A


The quarter of the time from midnight to present time added to the half of the time from the present to midnight gives the present time. What is the present time?

Ans: 9hrs past 36 minutes AM


Girl ' A ' told to her friend about the size and color of a snake she has seen in the beach. It is one of the colors brown/black/green and one of the sizes 35/45/55. If it were not green or if it were not of length 35 it is 55 . If it were not black or if it were not of length $\mathbf{4 5}$ it is $\mathbf{5 5}$. If it were not black or if it were not of length $\mathbf{3 5}$ it is 55 .
a) What is the color of the snake? b) What is the length of the snake?

$$
\text { Ans: a) brown b) } 55
$$



