2026 TECH MAHINDRA TEST-2

Test Summary

* No. of Sections: 3
* No. of Questions: 47
* Total Duration: 90 min

Section 1 - VERBAL

Section Summary

* No. of Questions: 20
* Duration: 20 min

Additional Instructions:

None

Q1.

**You are requested to identify the best way of writing the sentence in the context of the correct usage of standard written English. While doing so, you have to ensure that the message being conveyed remains the same in all the cases.**

By the end of the 21st century, the average individual’s cost of going into space is estimated at a fraction of the price per economy ticket of transatlantic airplane travel.﻿

The average individual’s cost of going into space is estimated at a fraction of the price per economy ticket of transatlantic airplane travel by the end of the 21st century.

The average individual’s cost by the end of the 21st century of going into space is estimated at a fraction of the price per economy ticket of transatlantic airplane travel.

The average individual’s cost of going into space is estimated at a fraction of the price per economy ticket of transatlantic airplane travel by the end of the 21st century.

To go into space, the cost to the average individual is estimated at a fraction of the price per economy ticket of transatlantic airplane travel by the end of the 21st century.

It is estimated that by the end of the 21st century the cost to the average individual of going into space will be a fraction of the current price per economy ticket of transatlantic airplane travel.

Q2.

**Fill in the blank with a suitable article from the options given.**

There is \_\_\_\_ institution for the blind in this city.

a

an

the

no article required

None of the mentioned options

Q3.

**A number of sentences are given below which, when properly sequenced, form a coherent paragraph. Each sentence is labeled with a letter. Choose the most logical order of sentences from among the four given choices to construct a coherent paragraph.**

A. Rather, as many view it, it would be inescapable.

B. With the number of flyers growing 6% annually and 3 billion cell phone devices in operation, foreign airlines are racing to offer passengers the ability to call, text, and e-mail with their mobiles and PDAs at about the same rates as for roaming international calls.

C. Connectivity has yet again despoiled once sacred ground, though this time it's in the air.

D. In the U.S., voice won't be available anytime soon, but Wi-fi will make e-mail and testing available next year.

E. Whether you're en route to London, Paris, or Dublin a fellow traveler's gritty life details, will soon be audible.

CEABD

BACDE

EABDC

BEACE

Q4.

Choose the option that is the correct active/passive form of the given sentence.

I've started a habit of reading newspaper every morning.

A habit of reading newspaper had been developed by me every morning.

A habit of reading newspaper has been developed by me every morning.

A habit had been developed by me of reading newspaper every morning

None of the mentioned options

Q5.

**Select most suitable synonym**

Volatile

predictable

uproarious

erratic

commodious

Q6.

**Pick out the best alternative from the options for the underlined part of the sentence**

Every resident must help the Residents’ Welfare Association for keep up the colony clean.

for upkeep clean the colony

for keeping the colony cleanliness

to keep the colony clean

for clean and keep the colony

Q7.

**Find the closest word which is similar to the given word :**

Recalcitrant

Careless

Dive

Stubborn

Casual

Q8.

**Select the option that is most nearly OPPOSITE in meaning to the given word**

DISSOLUTION

retribution

compliance

futility

establishment

Q9.

Sherin's shop is \_\_\_\_\_\_ the library and a diner.

among

near

between

in

Q10.

Fill in the blank with a suitable article from the options given.

He has known me since I was \_\_\_\_\_ child.

a

an

the

no article required

Q11.Essay Writing

Write an essay on the given topic in 300-400 words

"Reservation System in India"

Directions

1. Use all the phrases given

2. Common grammatical rules, punctuation should be according to standard English.

3. You can use your own phrases along with the phrases given.

Keywords

Q12.

**A number of sentences are given below which, when properly sequenced, form a coherent paragraph. Each sentence is labeled with a letter. Choose the most logical order of sentences from among the four given choices to construct a coherent paragraph.**

A. A person's appearance and behavior make us draw conclusions about their education level, socio-economic background, competency, success in career, trustworthiness, level of sophistication, etc.

B. An individual's perception is affected by his cultural experiences, beliefs, attitudes, and expectations.

C. We are constantly feeding other's perceptions of us through our actions, language, dressing, etc.

D. These conclusions are amazingly similar.

E. This is what makes perceptions a truly unique individual experience.

ABDCE

BECAD

CEDAB

BDAEC

Q13.

**Fill in the blank with a suitable article from the options given.**

I like to sleep in \_\_\_\_ open veranda.

a

an

the

no article required

Q14.

Identify the one which is opposite in meaning (antonym) to the question word

**calm**

swollen

perturbed

serene

corrupt

Q15.

Find which part of the statement has an error and select the appropriate option.

Although they typically avoid (A) / people, in Asia, "murder hornet" stings are (B) / thought to cause as many as 50 human (C) / fatalities a year, per annum.(D)

D

C

B

A

Q16.

Fill in the blanks with the right option:

The swimming pool \_\_\_\_\_ at 9 o'clock and \_\_\_\_\_\_ at 18.30 every day.

is opening / is closing

opens / closes

has opened / has closed

opened / closed

Q17.

**Fill in the blanks with suitable prepositions from the given choices:**

She was excited \_\_\_\_\_\_ the surprise party arranged \_\_\_\_\_ her birthday.

by, on

with, on

with, during

by, in

Q18.

Fill in the blank with appropriate tense

By the time I go to bed tonight, I \_\_\_\_\_\_\_my work for the day.

will finish

have finished

will have finished

finish

Q19.

In the following question, a sentence has been given in passive voice. From the four options select the one which best expresses the same sentence in the active voice.

A feeling of starving taking up over the them is remembered.

They remember a feeling of starving taking over theirs.

They will remember a feeling of starving taking over them

They have remembered a feeling of starving taking over them

They remember a feeling of starving taking over them.

Q20.

**Change the sentence from indirect speech to direct speech**

Mr.Sheldon said the sun rises in the east.

Mr.Sheldon said, "The sun rises in the east."

Mr.Sheldon said, "The sun rose in the east!"

Mr.Sheldon says "The sun has risen in the east."

Mr.Sheldon, "The sun rises in the east!"

Section 2 - Q&R

Section Summary

* No. of Questions: 15
* Duration: 20 min

Additional Instructions:

None

Q1.

A company instead of raising the markup by 20% discounted the cost price by 20% while stitching the price tag on its product. Further, the company offers a discount of 6.25% to its customers. In this process, the company incurs a loss of Rs. 37.5 on a single article. What is the selling price of that article?

Rs. 417.5

Rs. 112.5

Rs. 365.5

none of these

Q2.

Study the given expression and answer the question that follows.

A ≠ S < T = K = D

Which of the following can NOT be said definitely?

S < D

D = T

A ≠ D

K > S

Q3.

If "STUDENT" is coded as "TVVFFPV" how is "TEACHER" coded?

IOONNAF

UIOWXBV

VFBDJFT

DVNJOFB

Q4.

In the evening, Ashmita started walking positioning her back towards the sun. After sometime, she turned left, then turned right and then towards the left again. In which direction is she going now?

North

South

East

West

Q5.

A bag contains 6 red and 9 blue balls. Two successive drawings of four balls are made such that the balls are not replaced before the second draw. Find the probability that the first draw gives 4 red balls and the second draw gives 4 blue balls.

3/715

7/715

15/233

None of the mentioned options

Q6.

If the average of three numbers p, q and r is A, then the average of p, q, r and A is

Data insufficient

2A

A/2

A

Q7.

A Bus starts from point A with a speed of 75 km/hr, for every hour it changes its speed by +5 km/hr, -10 km/hr, +15 km/hr and so on, after 5 hours it reaches point B. Find the time taken by a car to travel from point B to A at 60 km/hr

5 hours 15 minutes

5 hours 45 minutes

6 hours 15 minutes

6 hours 45 minutes

Q8.

A cube is painted red on two adjacent surfaces and blue on the surfaces opposite to red surfaces and violet on the remaining faces. Now the cube is cut into 343 smaller cubes of equal size. Find the number of cubes with no surface painted.

48

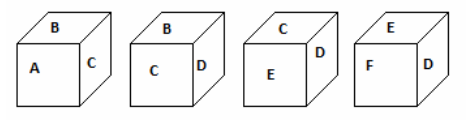
56

64

125

Q9.

Which symbol will be on the face opposite to the face with the symbol ‘C’?



D

E

B or D

F

Q10.

Which set of letters when sequentially placed at the gaps in the given letter series shall complete it?

\_qr\_srq\_p\_rs\_r\_p

pqrsss

qprsss

pspqsq

pspqqq

Q11.

Varshini sold one–fourth of her books at a gain of 10% and the remaining at cost price. Find the gain earned by her in the whole transaction

1.5 %

2%

2.5%

3%

Q12.

The question below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the questions Read both the statements and give an answer:

Jay put 12 cards on a table, some face up and the rest facedown. How many were put facedown?

(A) Jay put an even number of the cards facedown.

(B) Jay put twice as many of the cards face up as he put facedown.

if the question can be answered by using statement A alone but not by using B alone.

if the question can be answered by using statement B alone but not by using A alone.

if the question can be answered by using either statement alone

if the question can be answered by using both the statements together but not by either statement.

Q13.

Select the related letters from the given alternatives.

POPULAR : QPQVMBS::? : GBNPVT

FAMOSU

FAMOUS

FASOUM

FOSAUM

Q14.

A takes 4 minutes 40 seconds to complete the race while b takes 5 minutes to complete the race . A beats B by 30 metres. Find the length of the course.

1000 m

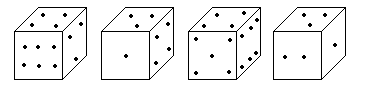
750 m

450 m

500 m

Q15.

How many points will be on the face opposite to the face that contains 3 points?



2

4

5

6

Section 3 - TECHNICAL

Section Summary

* No. of Questions: 12
* Duration: 50 min

Additional Instructions:

None

Q1.

Which of the following is not an attribute common to both abstract classes and interfaces?

They both can contain static variables.

They both can contain default methods.

They both can contain static methods.

They both can contain abstract methods.

Q2.

Calculate the effective throughput for transferring a 1000 KB file assuming TCP using a slow start congestion control technique. Given the round trip time of 100 ms, and the maximum segment size is 1460 bytes. Assume there are no losses and both the bandwidth and the receiver window size are infinite.

5 MBPS

10 MBPS

1 MBPS

2 MBPS

Q3.

Which of the following CSS properties determines whether an animation should run in reverse on some cycles?

Animation-run

Animation

Animation-repeat

Animation-direction

Q4.

The Reader's and Writers' Problem is a

Producer - consumer problem

Classical IPC problem

Starvation problem

Synchronization primitive

Q5.

RAM chips

allow the computer to store data electronically

store data indefinitely unless you delete it

are secondary memory

All of the mentioned options

Q6.

What will be the output of the following Java program?

A screenshot of a computer program

AI-generated content may be incorrect.

0

2

4

None of the mentioned options

Q7.

To build a user interface that contains graphical components, the components \_\_\_\_.

Must be added directly to a frame component.

Must each be added to a separate panel.

Must be added to a panel that is contained within a frame.

Must be added to a frame that is contained within a panel.

Q8.

Predict the output of the following code:

A screenshot of a computer code

AI-generated content may be incorrect.

25

26

27

Garbage Value

Q9.

What will be the output of the following program?

A screenshot of a computer code

AI-generated content may be incorrect.

100 200 300

99 199 299

101 201 301

98 198 298

Q10.

**The purpose of the following flowchart is to double the number in each of Boxes 2, 4,6,8 and 10. In order to accomplish exactly this - no more and no less - What is the smallest number which may be in box 1?**

A white paper with black squares and numbers

AI-generated content may be incorrect.

2

15

5

9

Q11.

**Problem Statement**

Lucarnos Film Festival is an annual film festival and is also known for being a prestigious platform for art house films. This year at the Locarno Film Festival there are many movies to be screened, each of different genres, ranging from dramas to comedies and teen movies to horror ones. The festival is a long-running event this time as the organizers are planning to screen only one movie per day. The organizers have populated their schedule in the form of a matrix, where 'i' is the movie number and 'j' is the day number. Eij is the movie preference date.

You are given a matrix E of N rows and M columns, where Eij is 1 if the ith movie is to be screened on a jth day; otherwise, it will be 0. Note that it is not necessary that if a movie x will be screened on day y, then day y should screen only movie x.

You know that if there are two different movies x and y that are to be screened on the same day z, then there will be a collision. Can you calculate the number of different collisions at this movie festival? Note that the order of the movies in the collision doesn't matter.

Input Format

The first line contains two integers N and M, separated by a space, representing the number of movies and the number of days.

The next N lines contain M space-separated integers. The jth integer on the ith line represents the preference date of the ith movie on the jth day. It will be either 0 or 1.

Output Format

The output displays the number of collisions at the film festival.

**Refer to the sample output for formatting specifications.**

Constraints

1 ≤ N ≤ 100 (number of movies)

1 ≤ M ≤ 100 (number of days)

Eij is either 0 or 1

Sample Input

4 3

1 1 1

1 0 0

1 1 0

0 0 0

Sample Output

4

Sample Input

2 2

1 0

0 1

Sample Output

0

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q12.

**Problem Statement**

Raju wants to find all the numbers in a given range such that the sum of each digit raised to the power of the total number of digits in the number equals the number itself.

Help him write a program to achieve this.

For example, 153 is an Armstrong number because 13 + 53 + 33 equals 153.

**Note:** The limit starts from 1.

Input Format

The input consists of an integer n, representing the upper limit.

Output Format

The output displays the integers, representing the Armstrong numbers separated by a space.

**Refer to the sample output for formatting specifications.**

Constraints

1 ≤ n ≤ 106

Sample Input

200

Sample Output

1 2 3 4 5 6 7 8 9 153

Sample Input

1000000

Sample Output

1 2 3 4 5 6 7 8 9 153 370 371 407 1634 8208 9474 54748 92727 93084 548834

Time Limit: 10 ms Memory Limit: 256 kb Code Size: 1024 kb

Answer Key & Solution

Section 1 - VERBAL

Q1

It is estimated that by the end of the 21st century the cost to the average individual of going into space will be a fraction of the current price per economy ticket of transatlantic airplane travel.

Solution

The first thing you have to do is figure out what the basic structure of this sentence is. X is Y. Something is estimated. That is critical verb in this sentence. Therefore, you need to find an answer choice that has a matching order of words. Despite the fact that it appears to be fairly complex, there is only one answer that even comes close to that core structure. Choice E is the correct answer

Q2

an

Solution

The word 'institution' has a vowel sound. So, the right article to be used is 'an'.

Q3

CEABD

Solution

'C' is the opening sentence as it is a general statement introducing the topic of discussion - connectivity, with special reference to air. 'E' continues the idea. 'A' follows as it takes what is said in 'E' forward - it will be audible even if you don't want to listen to it. 'B' follows as it gives more details about connectivity during air travel'. D concludes the paragraph by providing an additional piece of information. Hence, CEABD is the right sequence.

Q4

A habit of reading newspaper has been developed by me every morning.

Solution

While changing the voice of the sentence, the place of the subject and object interchanges and tense of the sentence remains the same.

'has/have + past participle" is changed to 'has/have + been + past participle'

Hence, (ii) is correct

Q5

erratic

Solution

The word volatile which means unstable or unpredictable. Predictable refers to expected, uproarious refers to very funny and commodious refers to spacious. So the best answer is erratic which means unpredictable or unreliable. Ans.(3)

Q6

to keep the colony clean

Solution

The proper statement should be : Infinitive form of the verb i.e., to + keep

Q7

Stubborn

Solution

"Stubborn" is a synonym for "recalcitrant." Both words describe someone who is resistant to authority, control, or guidance and is unwilling to comply or cooperate.

Q8

establishment

Solution

Dissolution means the action of formally ending. Retribution means penalty. Compliance means formal act of obeying. Futility means uselessness..Establish is to start. Establish is the answer.

Q9

between

Solution

Between - in the space in the middle of two things

Q10

a

Solution

Here, the word **child** refers to his state in the past which is in a generic way. Hence, indefinite article **a** is used.

Q11

Sample Essay

No Essay

Keywords

states, division, policies, scheduled, handicap, ex-servicemen, constitution, minority, beneficial, sector, public, private, population, percent, underprivileged, community, independence, democracy, children, opportunities,

Q12

BECAD

Solution

'This is what makes perception' in 'E' can refer to no other statement in the passage than 'B' which opens the topic 'individual perception'. Hence it is clearly "BECAD"which aptly takes 'D' as a concluding sentence.

Q13

an

Solution

Before vowel sound, the indefinite article 'an' has to be used.

Q14

perturbed

Solution

To be 'perturbed' is to be agitated. This is the appropriate antonym for 'calm'.

Q15

D

Solution

The error is in Part D of the sentence. The usage of the phrase 'a year' as well as 'per annum' causes a redundancy error.

Q16

opens / closes

Solution

To talk about the present and repeated actions Simple present tense is used.

Hence, Answer is open/closes.

Q17

by, on

Solution

By means ‘as a means of’ something or someone.On is used to denote the event of birthday

Q18

will have finished

Solution

The future perfect tense is used to indicate a future event that has a definitive end date. It follows a general formula of will + have + verb (ending in -ed).

The verb here should be "Will have finished"

Q19

They remember a feeling of starving taking over them.

Solution

Since, the sentence in passive voice is expressing the verb in simple present tense, then, the sentence in active voice must also be in simple present tense.

As per this, (ii) and (iii) is eliminated.

(i) is in simple present tense, but the pronoun "theirs" usage is wrong.

So, (iv) is correct.

Q20

Mr.Sheldon said, "The sun rises in the east."

Solution

The sun rises in the east - This statement is a universal truth. While converting to direct or indirect speech we cannot change the tense.

So, the right answer is Mr.Sheldon said, ''The sun rises in the east.''

Section 2 - Q&R

Q1

Rs. 112.5

Solution

Let us consider C.P product = Rs. 100

C.P after 20% discount = Rs. 80

Further 6.25% discount C.P = Rs. 75

Loss obtained = Rs. 25

If obtained loss is Rs. 25 then S.P = Rs. 75

If obtained loss is Rs. 37.50 then S.P = 37.5 × 3 = Rs. 112.50.

Q2

A ≠ D

Solution

Given equation: A ≠ S < T = K = D

Now check all the option:

Option (1): S < D → True (as S < T = K = D → S < D)

Option (2): D = T → True (as T = K = D → D = T)

Option (3): A ≠ D → False (as A ≠ S < T = K = D → Can NOT be said definitely)

Option (4): K > S → True (as S < T = K → K > S)

Q3

VFBDJFT

Solution

In this coding , each letter in the original word is shifted one position forward in the alphabet for odd-positioned letters and two positions forward for even-positioned letters.

Q4

North

Solution

No Solution

Q5

3/715

Solution

Probability that the first draw gives 4 red balls, P(A) = 6C4/15C4

Probability that the second draw gives 4 blue balls, P(B) = 9C4/11C4

Therefore, the required Probability is,P(E) = P(A)xP(B) = 3/715

Q6

A

Solution

Average of pqr is A.

Hence sum of pqr is 3A

Average of pqrA=sum(pqrA)/4

=(3A+A)/4

=A

Q7

6 hours 15 minutes

Solution

Speed for first hour = 75kmph

Speed for second hour = 75+5 = 80kmph

Speed for third hour = 80-10 = 70kmph

Speed for fourth hour = 70+15 = 85kmph

Speed for fifth hour = 85-20 = 65kmph

So the distance between point A and B = 75+80+70+85+65+85 = 375 kmph

Speed of car = 60kmph

Time taken = 375/60=6 hours 15 minutes.

Q8

125

Solution

We know that Cubes with no surface painted can be found using (x−2)3, where x is the number of cuttings.

Here x = 7.

∴ (7−2)3 = 125

Q9

F

Solution

Combining Figure iii and iv, we will get F is opposite of C.

Q10

pspqsq

Solution

The correct sequence is pqrs/srqp/pqrs/srqp.

And the pattern is pqrs and srqp.

Q11

2.5%

Solution

Let X be the Cost price and the number of articles is 100

SP of 25 articles be (1.1 X) 25 = 27.5 X

SP of 75 articles be 75 X

Total SP = 102.5 X

Profit = 2.5 X

Profit % = 2.5%

Q12

if the question can be answered by using statement B alone but not by using A alone.

Solution

Statement(A): If X denotes the number of cards that were put facedown, it follows from (A) that X could be 2,4,6,8,10, or 12. Thus statement (A) alone is not sufficient.

Statement (B) it can be determined that 2X + X = 3X = 12, or X = 4. Therefore, statement (B) alone is sufficient.

Q13

FAMOUS

Solution

G  B  N  P V  T

-1 -1 -1 -1 -1 -1

F   A M O U  S

Q14

450 m

Solution

Loser's Time / Winners distance = Beat Time/ Beat distance

(5\*60)/L =20/30

L = 450 m

Q15

5

Solution

The adjacent faces to the face which 3 points have 2, 1, 4 and 6 points. Hence on the face which is opposite to the face which contains 3 points, there will be 5 points.

Section 3 - TECHNICAL

Q1

They both can contain default methods.

Solution

No Solution

Q2

1 MBPS

Solution

Q3

Animation-direction

Solution

animation-direction: Determines whether an animation should run in reverse on some cycles.

Q4

Classical IPC problem

Solution

Classical IPC Problems includes:

1. Dining Philosophers Problem

2. The Readers and Writers Problem

3. The Sleeping Barber Problem

Q5

allow the computer to store data electronically

Solution

No Solution

Q6

4

Solution

No Solution

Q7

Must be added to a panel that is contained within a frame.

Solution

No Solution

Q8

27

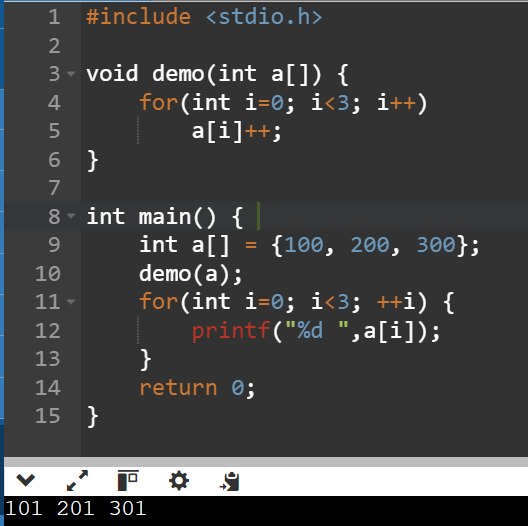
Solution

No Solution

Q9

101 201 301

Solution



Q10

2

Solution

Here is the step-by-step analysis:

1. **Step 1**: Add (number in box 2) + (number in box 2), put result into box 2.

* This operation doubles the number in box 2.

1. **Step 2**: Change Instruction 1: Increase all box numbers mentioned in it by 2.

* This modifies Instruction 1 to: Add (number in box 4) + (number in box 4), put result into box 4.

1. **Step 3**: Is (number in box 1) less than the second box number mentioned in Instruction 1?

* The second box number mentioned in Instruction 1 is initially box 2.
* If Box 1 < 2, repeat steps 1 and 2 with updated instruction.

1. As we continue the loop, Instruction 1 is modified to operate on the following boxes in sequence:

* Box 2 -> Box 4 -> Box 6 -> Box 8 -> Box 10

To double the numbers in boxes 2, 4, 6, 8, and 10 exactly, we need to ensure that Box 1 is less than these box numbers as they appear in the instruction sequence.

The smallest number in Box 1 that allows the instructions to apply exactly once to each of boxes 2, 4, 6, 8, and 10 is the number 2. Here is why:

* Initially, Box 1 needs to be less than 2 to start the process.
* Then, after the first cycle, Box 1 should be less than 4 (the next box number in the updated instruction).
* The process continues ensuring Box 1 is less than 6, then less than 8, and finally less than 10 in the subsequent cycles.

After the process has doubled each required box, the instructions no longer need to loop as Box 1 would be equal to or greater than the subsequent box number mentioned.

Therefore, the smallest number which may be in box 1 to ensure exactly doubling each required box is **2**.

Q11

Solution

#include <iostream>

#include <vector>

using namespace std;

int main() {

int n, m;

cin >> n >> m;

vector<vector<int>> e(n, vector<int>(m));

int collisions = 0;

for (int i = 0; i < n; ++i) {

for (int j = 0; j < m; ++j) {

cin >> e[i][j];

}

}

for (int j = 0; j < m; ++j) {

for (int i = 0; i < n; ++i) {

if (e[i][j] == 1) {

for (int k = i + 1; k < n; ++k) {

if (e[k][j] == 1) {

collisions++;

}

}

}

}

}

cout << collisions << endl;

return 0;

}

Q12

#include<iostream>

#include<cmath>

using namespace std;

int main() {

int low = 1, high, digitSum, temp, remainderNum, digitNum ;

cin >> high;

for(int num = low; num <= high; num++) {

temp = num;

digitNum = 0;

while (temp != 0) {

digitNum++;

temp = temp/10;

}

temp = num;

digitSum = 0;

while (temp != 0) {

remainderNum = temp%10;

digitSum = digitSum + pow(remainderNum, digitNum);

temp = temp/10;

}

if (num == digitSum)

cout << num << " ";

}

return 0;

}

Top of Form

Bottom of Form

Top of Form

Bottom of Form