

X

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cs23i1027@iiitdm.ac.in ▾

NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » The Joy of Computing using Python (course)Course
outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

- Introduction to Programming (unit? unit=17&lesson=18)
- Why Programming? (unit? unit=17&lesson=19)
- Programming for Everybody (unit? unit=17&lesson=20)
- Any Prerequisites?

Week 1 : Assignment 1

The due date for submitting this assignment has passed.

Due on 2024-08-07, 23:59 IST.

Assignment submitted on 2024-08-06, 16:40 IST

1) The cat wants to move 100 steps away slowly, and by the time it finishes moving 100 steps, it needs to slowly rotate as well towards the opposite direction. Can both these tasks be accomplished by using single loop in scratch? **1 point**

☒ Yes☐ No

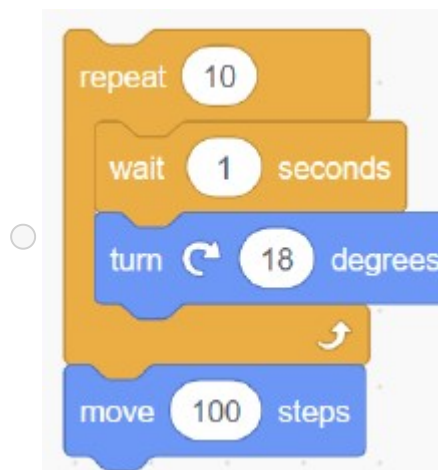
Yes, the answer is correct.

Score: 1

Accepted Answers:

Yes

2) Which block moves the cat as described in the previous question ? **1 point**



(unit?
unit=17&lesso
n=21)

☐ Where to
start? (unit?
unit=17&lesso
n=22)

☐ Why do we
have so many
languages?
(unit?
unit=17&lesso
n=23)

☐ How to go
about
programming?
(unit?
unit=17&lesso
n=24)

☐ Why to learn
programming?
(unit?
unit=17&lesso
n=25)

☐ What is
programming?
(unit?
unit=17&lesso
n=26)

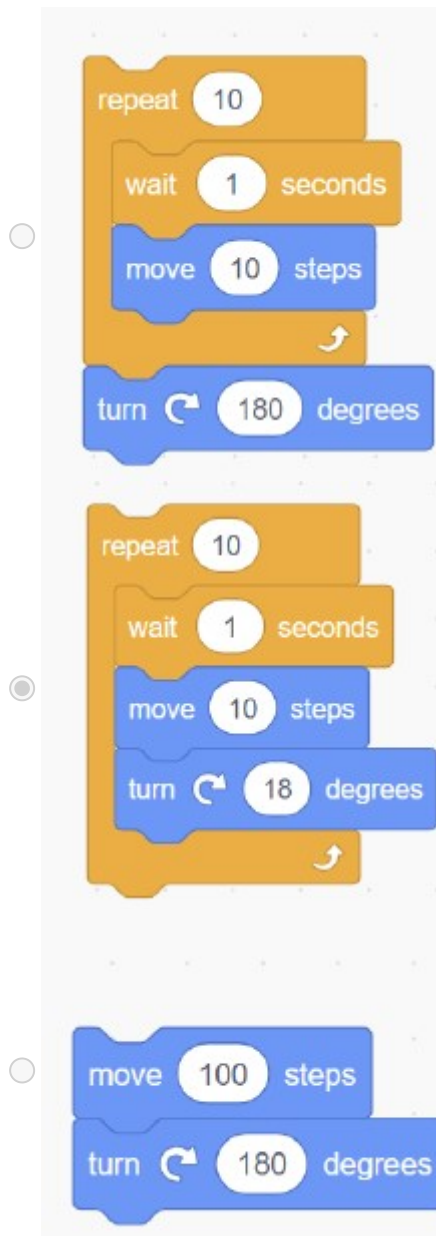
☐ How to give
instructions?
(unit?
unit=17&lesso
n=27)

☐ Introduction to
Scratch (unit?
unit=17&lesso
n=28)

☐ Introduction to
Loops (unit?
unit=17&lesso
n=29)

☐ More about
Loops (unit?
unit=17&lesso
n=30)

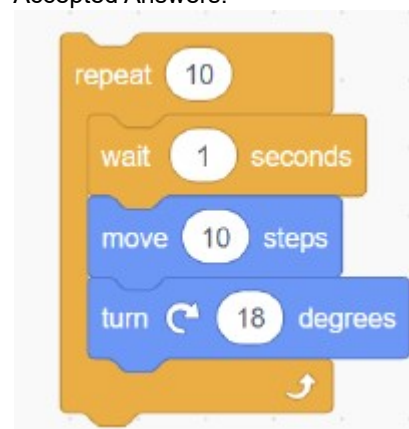
☐ Solution to
Looping
Problem (unit?



Yes, the answer is correct.

Score: 1

Accepted Answers:



unit=17&less
n=31)

☐ Scratch :
Animation 1
(unit?
unit=17&less
n=32)

☐ Scratch :
Animation 2
(unit?
unit=17&less
n=33)

☐ Scratch :
Animation 3
(unit?
unit=17&less
n=34)

☐ More on
Scratch (unit?
unit=17&less
n=35)

☒ **Quiz: Week 1
: Assignment
1
(assessment?
name=443)**

☐ Week 1
Feedback
Form: The Joy
of Computing
using Python
(unit?
unit=17&less
n=36)

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

3) What does the cat say here ?

1 point



- ☐ Says the number 4, for 1 second, 10 times and changes the value of number variable by multiplying previous value with 4.
- ☐ Says the number 4, for 1 second, 10 times and changes the value of number variable by adding previous value with 4.
- ☐ Says the number 4, and its multiples each for 1 second, till 40 and changes the value of number variable by multiplying previous value with 4.
- ☒ Says the number 4, and its multiples each for 1 second, till 40 and changes the value of number variable by adding previous value with 4.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Says the number 4, and its multiples each for 1 second, till 40 and changes the value of number variable by adding previous value with 4.

4) From the previous question, what is the value of number variable after the loop ends ?

1 point

- ☐ 40
- ☒ 44
- ☐ 36
- ☐ 4

Yes, the answer is correct.

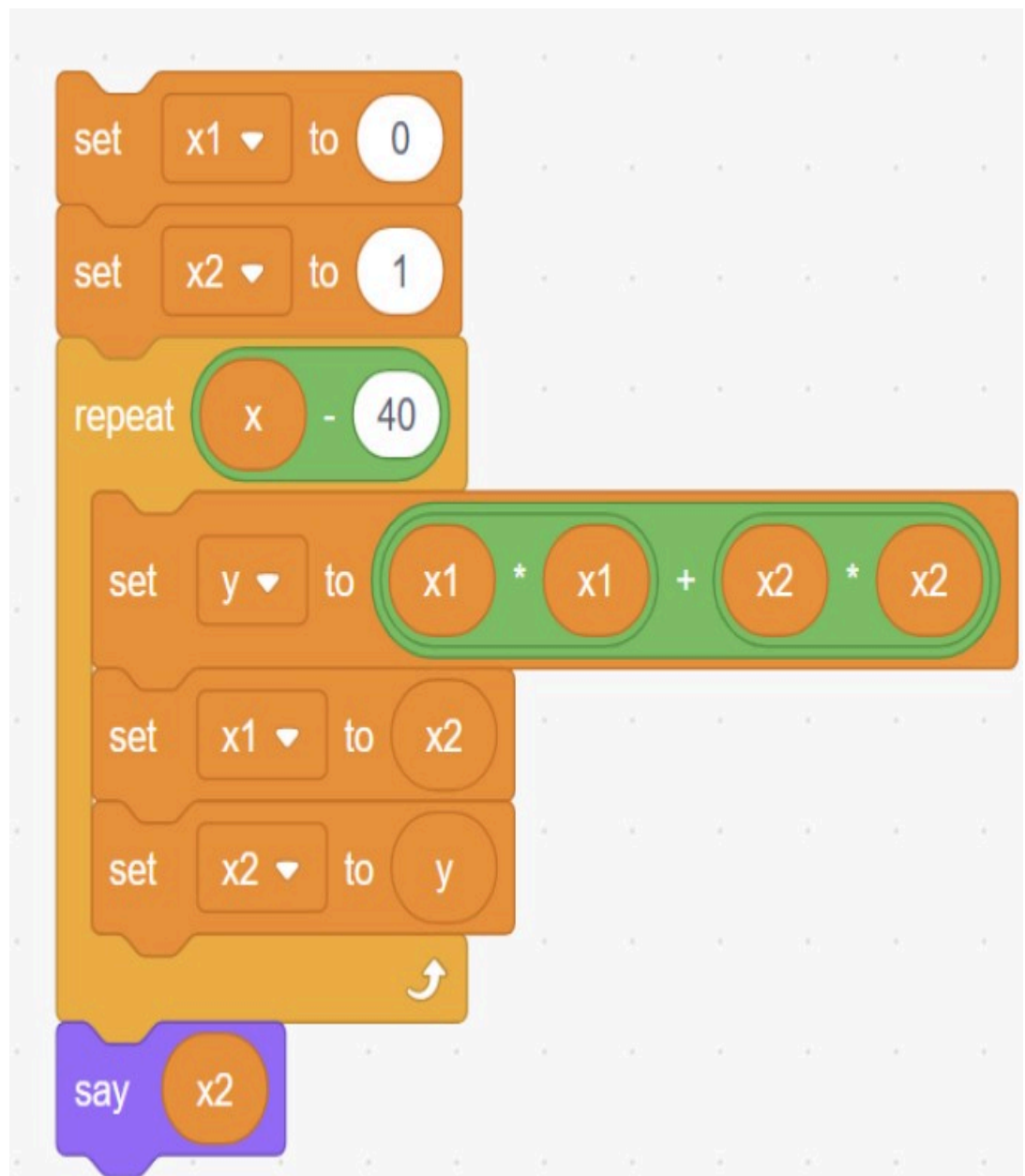
Score: 1

Accepted Answers:

44

5) Let answer for previous question be stored in variable x, what does the cat say after the execution of the loop ?

1 point

[Week 10 \(\)](#)[Week 11 \(\)](#)[Week 12 \(\)](#)[Text Transcripts \(\)](#)[Download Videos \(\)](#)[Books \(\)](#)[Problem Solving Session - July 2024 \(\)](#)

- ☐ 16
- ☐ 5
- ☒ 29
- ☐ 44

Yes, the answer is correct.

Score: 1

Accepted Answers:

29

6) Which of the following is use case of variables in programming.

1 point

- ☐ They are used to make the computer store program data into SSD.
- ☒ They help in storing and retrieval of information/data while a task on the machine is running.
- ☐ They simplify a task which involves processing repetitive procedures.They simplify a task which involves processing repetitive procedures.

- ☐ They help in running multiple tasks parallel to each other.

Yes, the answer is correct.

Score: 1

Accepted Answers:

They help in storing and retrieval of information/data while a task on the machine is running.

7) What is the concept that helps in instructing the computer to execute repetitive tasks ? **1 point**

- ☐ Functions
- ☐ Variables
- ☐ Conditionals
- ☒ Loops

Yes, the answer is correct.

Score: 1

Accepted Answers:

Loops

8) Can polynomial expressions be instructed to computer in logically finite steps ? **1 point**

- ☒ Yes
- ☐ No

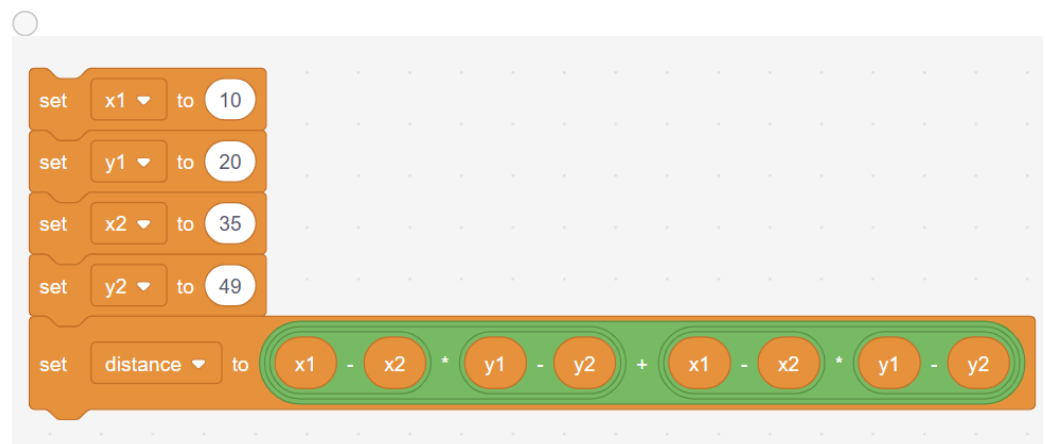
Yes, the answer is correct.

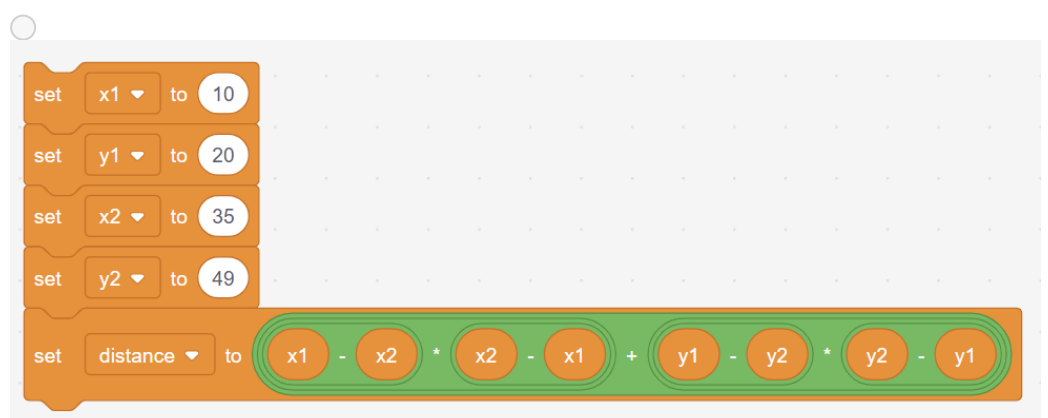
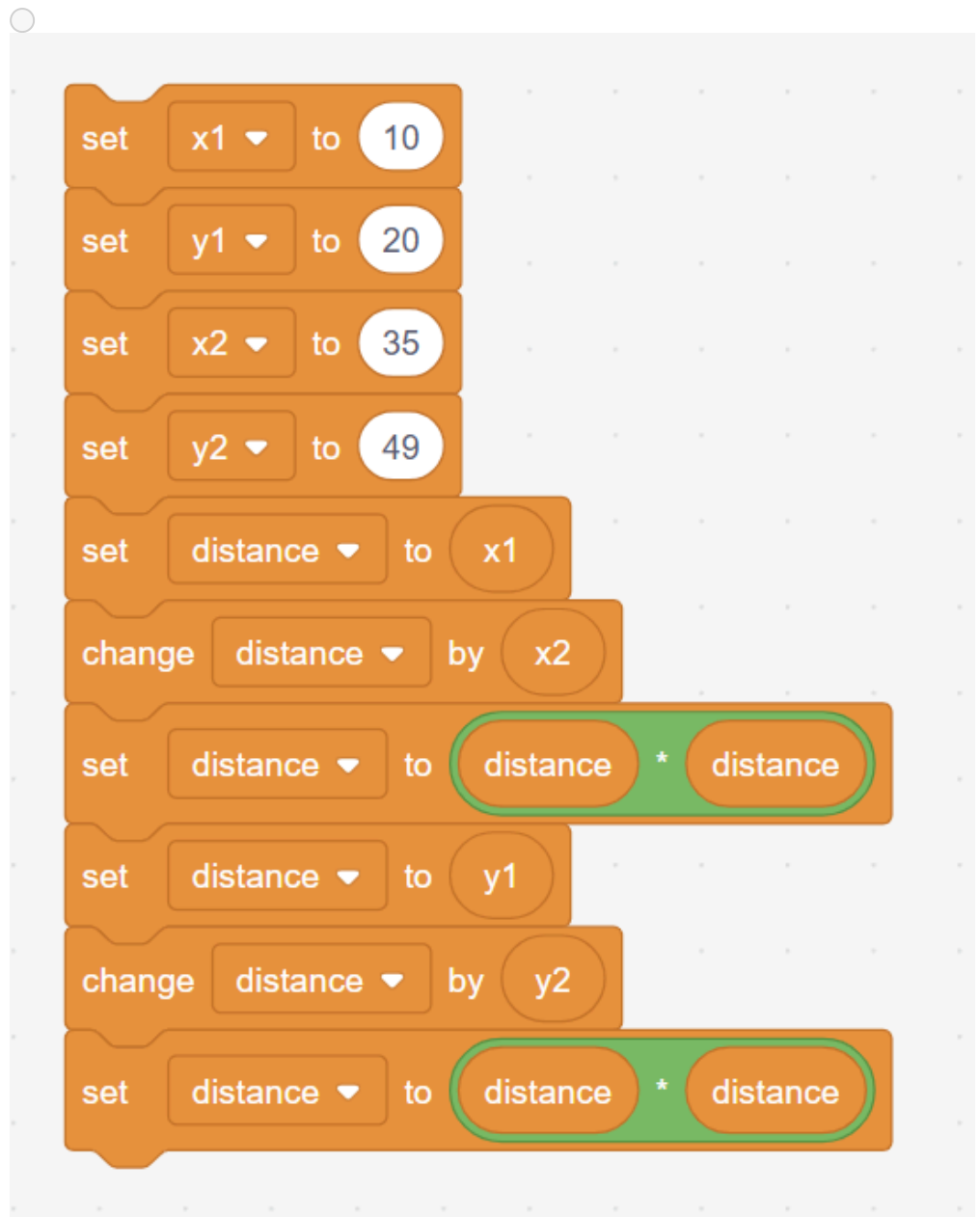
Score: 1

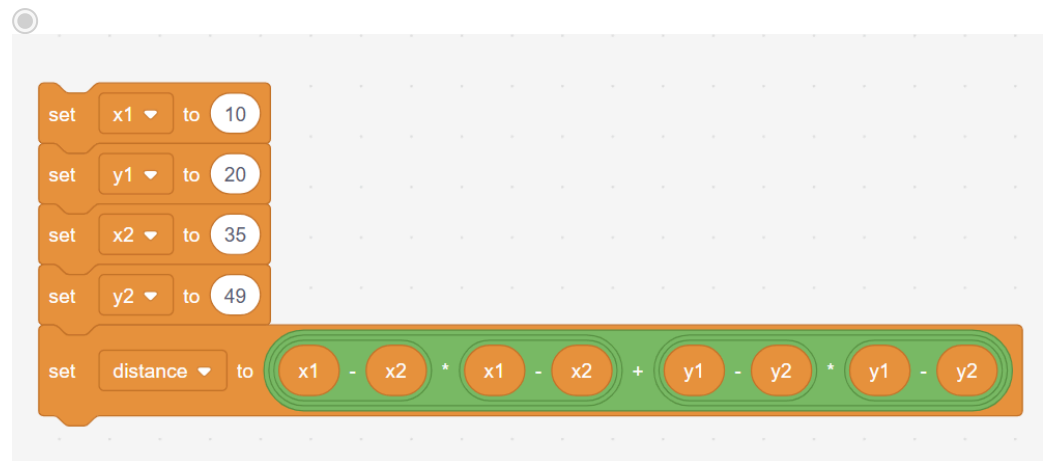
Accepted Answers:

Yes

9) In which of the following code blocks **calculation** of the squared distance between two points (10, 20) and (35, 49) is accomplished. **1 point**



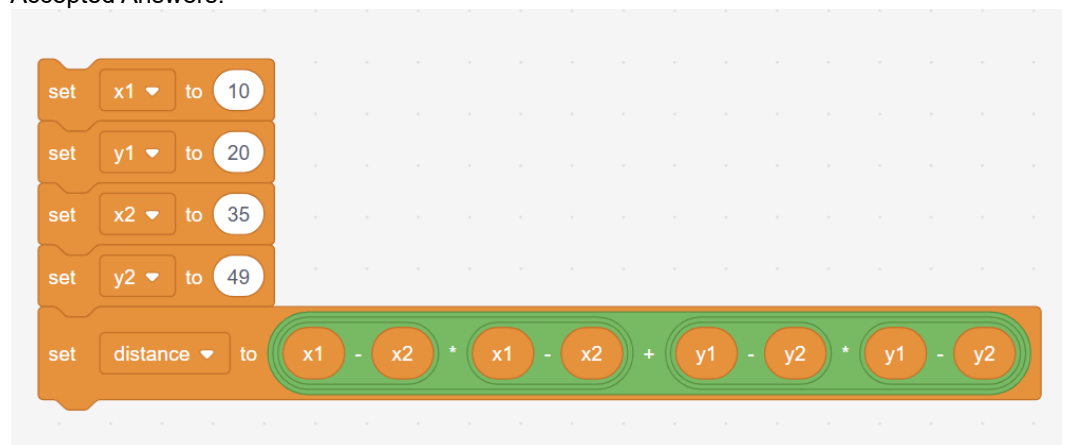




Yes, the answer is correct.

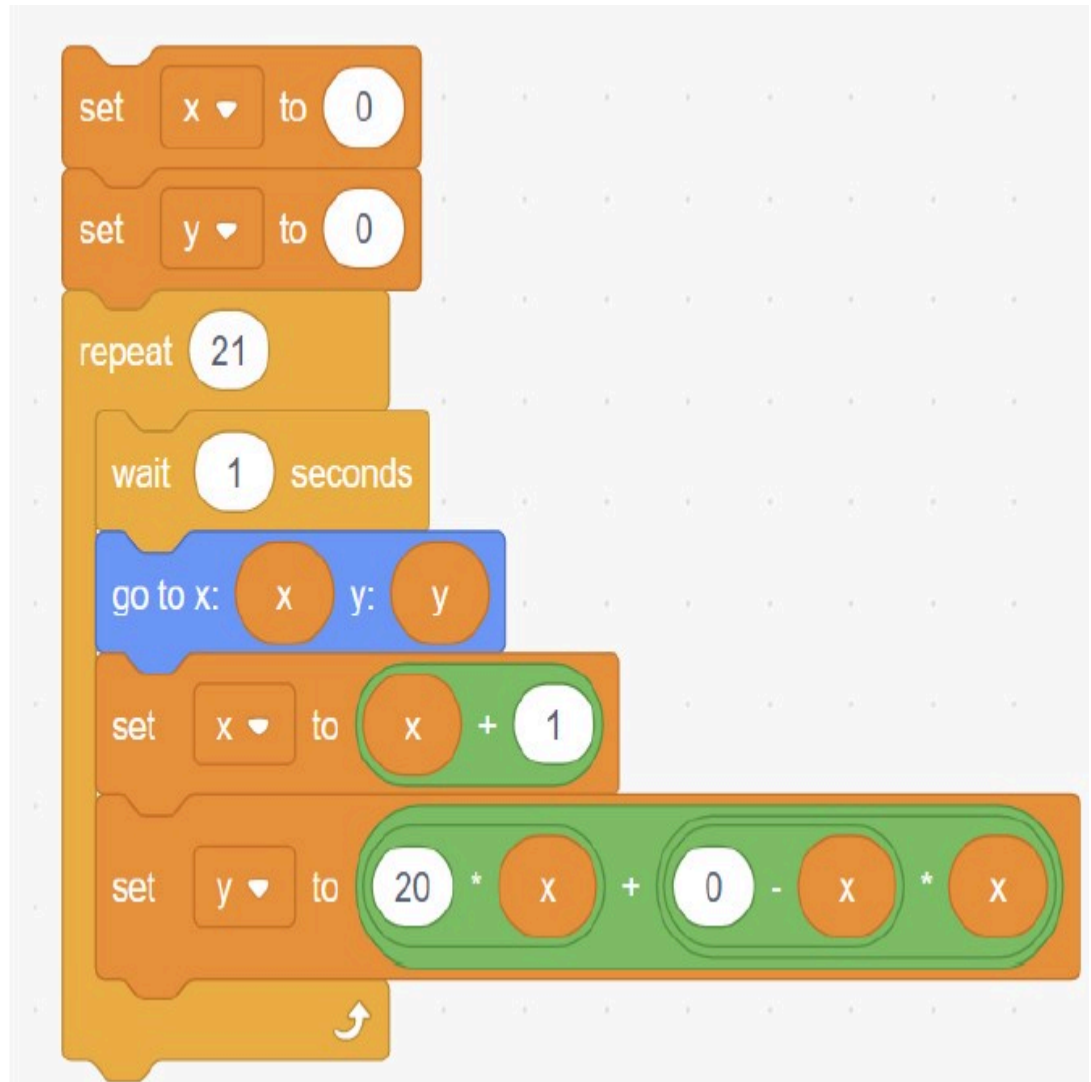
Score: 1

Accepted Answers:



10) What task does the block below accomplish ?

1 point



- ☐ Moves the ball in a parabolic path and stops 21 away steps from center(0, 0) in x direction.
- ☐ Moves the ball in a circular path and 21 times.
- ☐ Moves the ball in a triangular path and end at the center (0, 0).
- ☒ Moves the ball in a parabolic path and stops 20 away steps from center(0, 0) in x direction.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Moves the ball in a parabolic path and stops 20 away steps from center(0, 0) in x direction.

X

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outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

☐ Introduction to
Anaconda
(unit?
unit=37&lesso
n=38)☐ Installation of
Anaconda
(unit?
unit=37&lesso
n=39)☐ Introduction to
Spyder IDE
(unit?
unit=37&lesso
n=40)

Week 2: Assignment 2

The due date for submitting this assignment has passed.

Due on 2024-08-07, 23:59 IST.

Assignment submitted on 2024-08-06, 17:00 IST

1) **Statement** : If a variable is assigned multiple times, the latest value is not stored in **1 point**
the variable

- ☐ False, the variable stores all values it was assigned
- ☒ False, the variable stores the value from the latest assignment.
- ☐ True, the variable stores the value from the second-last assignment.
- ☐ True, the variable stores value from the initial assignment

Yes, the answer is correct.

Score: 1

Accepted Answers:

*False, the variable stores the value from the latest assignment.*2) Which of the following code blocks print - "Hello Ram Lakshman and Hanuman !" ? **1 point**☐

```
name1 = "Ram"
name2 = "Lakshman"
name3 = "Hanuman"
print("Hello",name1,name2, "and",name3,"!")
```

☐

```
name1 = "Ram"
name2 = "Lakshman"
name3 = "Hanuman"
print("Hello",name1,name1, "and",name3,"!")
```

- ☐ Printing statements in Python (unit? unit=37&lesson=41)
- ☐ Understanding Variables in Python (unit? unit=37&lesson=42)
- ☐ Executing a sequence of instructions in the Console (unit? unit=37&lesson=43)
- ☐ Writing your First Program (unit? unit=37&lesson=44)
- ☐ Taking inputs from the user (unit? unit=37&lesson=45)
- ☐ Discount Calculation (unit? unit=37&lesson=46)
- ☐ Motivation to if condition (unit? unit=37&lesson=47)
- ☐ A reminder on how to deal with numbers (unit? unit=37&lesson=48)
- ☐ Understanding if condition's working (unit? unit=37&lesson=49)
- ☐ Realizing the importance of syntax and

☒ `print("Hello Ram Lakshman and Hanuman !")`

☐ `name1 = "Ram"`
`name2 = "Lakshman"`
`name3 = "Hanuman"`
`print("Hello Ram", name1, "and", name3, "!")`

Partially Correct.
 Score: 0.5

Accepted Answers:

```
name1 = "Ram"
name2 = "Lakshman"
name3 = "Hanuman"
print("Hello", name1, name2, "and", name3, "!")
```

```
print("Hello Ram Lakshman and Hanuman !")
```

3) What aren't the correct ways to inform python that input is an integer ?

1 point

- ☒ `in(input())`
☒ `float(input())`
☐ `int(input())`
☒ `a = input()`
`a = int(a)`

No, the answer is incorrect.
 Score: 0

Accepted Answers:

`in(input())`
`float(input())`

4) The following program outputs 722 -

1 point

```
a = 7
result = 1
for i in range(a):
    if(i > 0):
        result = result * i
print(result+2)
```

indentation
(unit?
unit=37&lesso
n=50)

☐ Introductions
to loops (unit?
unit=37&lesso
n=51)

☐ Loops: Sum of
numbers (unit?
unit=37&lesso
n=52)

☐ Loops: Sum of
numbers
(continued)
(unit?
unit=37&lesso
n=53)

☐ Loops:
Multiplication
Tables (unit?
unit=37&lesso
n=54)

☐ Introduction to
While Loop
(unit?
unit=37&lesso
n=55)

☒ **Quiz: Week 2:
Assignment 2
(assessment?
name=444)**

☒ Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=446)

☒ Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=448)

☒ Programming
Assignment 3
(/noc24_cs113
/progassignme
nt?name=447)

☐ Week 2
Feedback
Form: The Joy

For what value of **a** does the code output 8 ?

- ☐ 2
☐ 1
☒ 4
☐ 6

Yes, the answer is correct.

Score: 1

Accepted Answers:

4

5) What does previous question calculate ?

1 point

- ☐ Calculates the factorial of **a**.
☐ Calculates the factorial of **a** and adds 2.
☐ Calculates the a multiples of **a** starting from **1** and adds **2**.
☒ Calculates the factorial of **a-1** and adds **2**.

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Calculates the factorial of **a-1** and adds **2**.*

6) Which loop is used to perform a set of repetitive tasks based on condition in Python?

1 point

- ☒ **while** loop
☐ **for** loop
☐ **do-while** loop
☐ **while-range** loop

Yes, the answer is correct.

Score: 1

Accepted Answers:

while loop

7) What happens when the condition inside the **if** and **while** evaluate to false ?

1 point

- ☐ Python interpreter ignores the **if/while** blocks, and halts the program.
☒ Python interpreter ignores the **if/while** blocks, and proceeds the program from the lines after the **if/while** block.
☐ Python interpreter executes the **if/while** blocks, and rest of the program.
☐ Python interpreter executes the **if/while**, and the programs runs in an infinite loop.

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Python interpreter ignores the **if/while** blocks, and proceeds the program from the lines after the **if/while** block.*

8) The following program might/might not have an infinite loop. Does the program have infinite loop ? **1 point**

of Computing
using Python
(unit?
unit=37&lesso
n=56)

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

Text
Transcripts
()

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Problem
Solving
Session -
July 2024 ()

```

1  a = int(input())
2  while(a == 0):
3      if(a<0):
4          a=-1
5      if(a>0):
6          a=1
7  if(a>1):
8      a=2
9  if(a<1):
10     a=-2
11  print(a)

```

- ☐ No, the program doesn't have infinite loop.
- ☒ Yes, it can be prevented by updating the value of **a** before the **if** block at line 3
- ☐ Yes, it can be prevented by removing both the **if** blocks inside the while loop.
- ☐ Yes, but it cannot be prevented

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Yes, it can be prevented by updating the value of **a** before the **if** block at line 3*

9) For which of the following values of **name** and **age** variables does the following code print "You are lucky"?

1 point

```
name = input("Enter your name: ")
age = int(input("Enter your age: "))
flag = "False"
if(age >= 18):
    flag = "True"
else:
    flag = "False"
counter = 0
for i in name:
    if(i == "a"):
        counter += 1
if(flag == "True"):
    if(counter > 2):
        print("You are lucky")
    else:
        print("You are not lucky")
```

- ☐ aryan, 20
- ☐ arjun, 19
- ☐ aakash, 17
- ☒ aatreya, 18

Yes, the answer is correct.

Score: 1

Accepted Answers:

aatreya, 18

10) For which of the options among the previous question, the program doesn't print anything. **1 point**

- ☐ aryan, 20
- ☐ arjun, 19
- ☒ aakash, 17
- ☐ aatreya, 18

Yes, the answer is correct.

Score: 1

Accepted Answers:

aakash, 17

X

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outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

☐ Lists Part 1 :
Introduction
(unit?
unit=57&lesso
n=58)

☐ Lists Part 2 :
Manipulation
(unit?
unit=57&lesso
n=59)

☐ Lists Part 3 :
Operations
(unit?)

Week 3: Assignment 3

The due date for submitting this assignment has passed.

Due on 2024-08-14, 23:59 IST.

Assignment submitted on 2024-08-14, 18:43 IST

1) Which of the following is/are **true** statement(s)?

1 point

- ☒ Lists are used to store multiple values.
- ☐ One can access element in list by using non-numeric indices.
- ☒ Iterating over lists is possible in Python.
- ☐ We need to specify required size of list while creating a new list variable.

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Lists are used to store multiple values.**Iterating over lists is possible in Python.*

unit=57&lesso
n=60)

○ Lists Part 4 :
Slicing (unit?
unit=57&lesso
n=61)

○ Loops and
Conditionals :
Fizzbuzz 01
(unit?
unit=57&lesso
n=62)

○ Loops and
Conditionals :
Fizzbuzz 02
(unit?
unit=57&lesso
n=63)

○ Crowd
Computing -
Just estimate
01 (unit?
unit=57&lesso
n=64)

○ Crowd
Computing -
Just estimate
02 (unit?
unit=57&lesso
n=65)

○ Crowd
Computing -
Just estimate
03 (unit?
unit=57&lesso
n=66)

○ Crowd
Computing -
Just estimate
04 (unit?
unit=57&lesso
n=67)

○ Crowd
Computing -
Just estimate
05 (unit?
unit=57&lesso
n=68)

○ Crowd
Computing -
Just estimate

2) In the below code -

```
n = ?
a = []
for i in range(n):
    l1 = []
    p = 0
    for j in range(i):
        l1.append(j)
    for k in l1:
        p+=1
    a.append(p)

k=0
for l in a:
    k+=1
print(k)
```

For what value of **n** does the program print **21** ?

Yes, the answer is correct.
Score: 1

Accepted Answers:
(Type: Numeric) 7

1 point

3) From the previous question, for what values of **n** is the number **7** appended to list **a**. **1 point**

- ☐ 7
☐ 6
☒ 8
☒ 9

Yes, the answer is correct.
Score: 1

Accepted Answers:
8
9

1 point

4) What does the following code perform ?

06 (unit?
unit=57&lesso
n=69)

☐ Permutations -
Jumbled
Words 01
(unit?
unit=57&lesso
n=70)

☐ Permutations -
Jumbled
Words 02
(unit?
unit=57&lesso
n=71)

☐ Permutations -
Jumbled
Words 03
(unit?
unit=57&lesso
n=72)

☒ Theory of
Evolution 01
(unit?
unit=57&lesso
n=73)

☐ Theory of
Evolution 02
(unit?
unit=57&lesso
n=74)

☐ Theory of
Evolution 03
(unit?
unit=57&lesso
n=75)

☐ Theory of
Evolution 04
(unit?
unit=57&lesso
n=76)

☒ Quiz: Week 3:
Assignment 3
(assessment?
name=453)

☐ Week 3
Feedback
Form: The Joy
of Computing
using Python
(unit?

```
def mystery(container):
    result = []
    for i in range(len(container)):
        if i % 2 == 0:
            result.append(container[i] * 2)
        else:
            result.append(container[i] + 3)
    return result
```

- ☐ It converts any input list into a new list which is filled with some alternative even and odd numbers.
- ☒ It converts any input list into a new list such that at even indices, the value is a multiple of an even number and at odd indices, the value is either odd or even number.
- ☐ It converts any input list into a new list such that at even indices, the value is multiple of 2 and at odd indices, the value is multiple of 3.
- ☐ It converts any input list into a new list, which follows no pattern.

Yes, the answer is correct.

Score: 1

Accepted Answers:

It converts any input list into a new list such that at even indices, the value is a multiple of an even number and at odd indices, the value is either odd or even number.

5) From the previous question, if the option - **1 point**
It converts any input list into a new list which is filled with some alternative even and odd numbers.

is incorrect, Can you make changes to code such that this option is true ?

- ☐ No, it is not possible to make such changes.
- ☐ No, the option is already correct.
- ☒ Yes, we can make changes.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Yes, we can make changes.

6) If **file.txt** exists, Does the code successfully run ? **1 point**

```
with open("file.txt", "w") as f:
    data = f.read()
    print(data)
```

- ☐ Yes
- ☒ No

Yes, the answer is correct.

unit=57&less
n=77)

Week 3:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=456)

Week 3:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=457)

Week 3:
Programming
Assignment 3
(/noc24_cs113
/progassignme
nt?name=458)

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

Text
Transcripts
()

Download
Videos ()

Books ()

Problem
Solving

Score: 1

Accepted Answers:

No

7) Which of the following are examples of Social Computing ?

1 point

- ☒ StackOverflow
☒ Wikipedia
☒ Quora
☐ None

Yes, the answer is correct.

Score: 1

Accepted Answers:

StackOverflow

Wikipedia

Quora

8) What does the following code print for **n = 3**?

1 point

```
n = 3
k = 0
a = []
b = 0
while (n != 0):
    k = k + (n % 10)
    a.append(n % 10)
    n = n//10
a.sort()
for i in a:
    b = b + i
if(b == k):
    print("WE KNOW THE WISDOM OF SERIES")
else:
    print("WE ARE YET TO KNOW MANY THINGS")
```

- ☒ WE KNOW THE WISDOM OF SERIES
☐ WE ARE YET TO KNOW MANY THINGS

Yes, the answer is correct.

Score: 1

Accepted Answers:

WE KNOW THE WISDOM OF SERIES

9) From the previous question, is the variable **n** or **a.sort()** responsible for printing of either of the two possible sentences ?

1 point

- ☒ No, it is not dependent on variable n, the code will never print "WE ARE YET TO KNOW MANY THINGS".
☐ Yes on a.sort() only, but the code will never print "WE ARE YET TO KNOW MANY THINGS".
☐ Yes on both, the code may print both sentences.

**Session -
July 2024 ()**

☒ No, it is not dependent on `a.sort()`, the code will never print "WE ARE YET TO KNOW MANY THINGS".

Yes, the answer is correct.

Score: 1

Accepted Answers:

No, it is not dependent on variable `n`, the code will never print "WE ARE YET TO KNOW MANY THINGS".

No, it is not dependent on `a.sort()`, the code will never print "WE ARE YET TO KNOW MANY THINGS".

10) What does the code in question 8, calculate ?

Can you say what the values of `k` and `b` are if $n = 10294343763482 \times 10^{2309}$.

If values of `k` and `b` are different, enter 0, else enter value of `k`

56

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: Numeric) 56

1 point

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Course outline

About NPTEL ()

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

☐ Practice is the key (unit? unit=78&lesson=79)

☐ Magic Square: Hit and Trial 01 (unit? unit=78&lesson=80)

☐ Magic Square: Hit and Trial

Week 4: Assignment 4

The due date for submitting this assignment has passed.

Due on 2024-08-21, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which of the following options provides the general formula for the magic constant of a magic square of size n , where all elements are distinct numbers from 1 to n^2 ? **1 point**

☐
$$\frac{n(n^2 + 1)}{2}$$

☐
$$\frac{n^3}{2}$$

☐
$$\frac{n^3 + 2}{2}$$

☐
$$\frac{n^4 + n^2}{2n}$$

No, the answer is incorrect.

Score: 0

Accepted Answers:

☐
$$\frac{n(n^2 + 1)}{2}$$

☐
$$\frac{n^4 + n^2}{2n}$$

2) What would the magic constant be for a magic square of size 6, given that all elements in the square are distinct numbers from 1 to 36? **1 point**

☐ 72

☐ 111

☐ 109

02 (unit?
unit=78&lesso
n=81)

☐ Magic Square:
Hit and Trial
03 (unit?
unit=78&lesso
n=82)

☐ Magic Square:
Hit and Trial
04 (unit?
unit=78&lesso
n=83)

☐ Magic Square:
Hit and Trial
05 (unit?
unit=78&lesso
n=84)

☐ Let's program
and play (unit?
unit=78&lesso
n=85)

☐ Dobble Game
- Spot the
similarity 01
(unit?
unit=78&lesso
n=86)

☐ Dobble Game
- Spot the
similarity 02
(unit?
unit=78&lesso
n=87)

☐ Dobble Game
- Spot the
similarity 03
(unit?
unit=78&lesso
n=88)

☐ Dobble Game
- Spot the
similarity 04
(unit?
unit=78&lesso
n=89)

☐ What is your
date of birth?
(unit?
unit=78&lesso
n=90)

☐ 110

No, the answer is incorrect.
Score: 0

Accepted Answers:
111

3) Does transposing the magic square give us a new magic square ?

1 point

☐ Yes

☐ No

No, the answer is incorrect.
Score: 0

Accepted Answers:
Yes

4) Which of the following are valid magic squares ?

1 point

☐

$$\begin{bmatrix} 10 & 3 & 13 & 8 \\ 5 & 16 & 2 & 11 \\ 4 & 9 & 7 & 14 \\ 15 & 6 & 12 & 1 \end{bmatrix}$$

☐

$$\begin{bmatrix} 20-e & 6-e & 26-e & 16-e \\ 10-e & 32-e & 4-e & 22-e \\ 8-e & 18-e & 14-e & 28-e \\ 30-e & 12-e & 24-e & 2-e \end{bmatrix}$$

☐

$$\begin{bmatrix} 1 & 14 & 4 & 15 \\ 8 & 11 & 5 & 10 \\ 13 & 2 & 16 & 3 \\ 12 & 7 & 9 & 6 \end{bmatrix}$$

☐

$$\begin{bmatrix} \pi & 14\pi & 4\pi & 15\pi \\ 8\pi & 11\pi & 5\pi & 10\pi \\ 13\pi & 2\pi & 16\pi & 3\pi \\ 12\pi & 7\pi & 9\pi & 6\pi \end{bmatrix}$$

No, the answer is incorrect.
Score: 0

Accepted Answers:

$$\begin{bmatrix} 10 & 3 & 13 & 8 \\ 5 & 16 & 2 & 11 \\ 4 & 9 & 7 & 14 \\ 15 & 6 & 12 & 1 \end{bmatrix}$$

☐ Birthday Paradox - Find your twin 01 (unit? unit=78&less n=91)

☐ Birthday Paradox - Find your twin 02 (unit? unit=78&less n=92)

☐ Birthday Paradox - Find your twin 03 (unit? unit=78&less n=93)

☐ Birthday Paradox - Find your twin 04 (unit? unit=78&less n=94)

☐ Birthday Paradox - Find your twin 05 (unit? unit=78&less n=95)

☐ What's your favourite movie? (unit? unit=78&less n=96)

☐ Guess the Movie Name 01 (unit? unit=78&less n=97)

☐ Guess the Movie Name 02 (unit? unit=78&less n=98)

☐ Guess the Movie Name 03 (unit? unit=78&less n=99)

$$\begin{bmatrix} 20-e & 6-e & 26-e & 16-e \\ 10-e & 32-e & 4-e & 22-e \\ 8-e & 18-e & 14-e & 28-e \\ 30-e & 12-e & 24-e & 2-e \end{bmatrix}$$

$$\begin{bmatrix} 1 & 14 & 4 & 15 \\ 8 & 11 & 5 & 10 \\ 13 & 2 & 16 & 3 \\ 12 & 7 & 9 & 6 \end{bmatrix}$$

$$\begin{bmatrix} \pi & 14\pi & 4\pi & 15\pi \\ 8\pi & 11\pi & 5\pi & 10\pi \\ 13\pi & 2\pi & 16\pi & 3\pi \\ 12\pi & 7\pi & 9\pi & 6\pi \end{bmatrix}$$

5) What is the minimum number of people required to ensure that at least two of them share the same 30-minute birth interval? The intervals start from 12:00 AM and each interval lasts for half an hour.

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Numeric) 49

1 point

6) Calculate the magic constant for 4x4 square, where all elements are distinct numbers from 1 to 16, is it same as the magic constant for Ramanujan's magic square ?

If yes, enter 0, else enter the absolute difference between the two.

Hint: Search the about Ramanujan's magic square.

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Numeric) 105

1 point

7) What task does function1() perform ?

1 point

☐ Guess the Movie Name 04 (unit? unit=78&lesson=100)

☐ Guess the Movie Name 05 (unit? unit=78&lesson=101)

☐ Guess the Movie Name 06 (unit? unit=78&lesson=102)

☐ Quiz: Week 4: Assignment 4 (assessment? name=454)

☒ Week 4: Programming Assignment 1 (/noc24_cs113 /progassignment?name=459)

☒ Week 4: Programming Assignment 2 (/noc24_cs113 /progassignment?name=461)

☒ Week 4: Programming Assignment 3 (/noc24_cs113 /progassignment?name=460)

☒ Week 4 Feedback Form: The Joy of Computing using Python (unit? unit=78&lesson=103)

Week 5 ()

Week 6 ()

Week 7 ()

```
def function1(number):
    list1 = []
    for i in range(1, number):
        if number % i == 0:
            list1.append(i)
    return list1

def function2(n1, n2):
    flag = False
    list2 = []
    for i in function1(n1):
        for j in function1(n2):
            if i == j:
                flag = True
                list2.append(i)
    if len(list2) > 0:
        print("Completed")
```

- ☐ Calculate factorial of number n.
- ☐ Calculate factors of number n.
- ☐ Calculate prime factors of number n.
- ☐ Calculate factors of number n excluding n.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Calculate factors of number n excluding n.

8) For what **n1,n2** flag will the variable **flag** inside **function2()** be not equal to true ? **1 point**

- ☐ 2,3
- ☐ 0,0
- ☐ 1,1
- ☐ 1,0

No, the answer is incorrect.

Score: 0

Accepted Answers:

0,0
1,1
1,0

[Week 8 \(\)](#)[Week 9 \(\)](#)[Week 10 \(\)](#)[Week 11 \(\)](#)[Week 12 \(\)](#)[Text
Transcripts
\(\)](#)[Download
Videos \(\)](#)[Books \(\)](#)[Problem
Solving
Session -
July 2024 \(\)](#)

9) If all possible pairs of prime numbers between 0 and 20, are given to n1 and n2, for **1 point** how many pairs would function2 print "Completed" ?

- ☐ It will not print "Completed" for any pair.
- ☐ It will print "Completed" only for pairs (2,3)(3,5),(2,5), and for the remaining it would not print "Completed".
- ☐ It will print "Completed" only for pair (2,3), and for the remaining other pairs of primes it would not print "Completed".
- ☐ It will print "Completed" for all pairs of primes between 0 and 20.

No, the answer is incorrect.

Score: 0

Accepted Answers:

It will print "Completed" for all pairs of primes between 0 and 20.

10) If numbers of pairs of primes which result in function2 to print "Completed" are **1 point** greater than 0, Can we edit the code in **function2()** so that "Completed" is never printed for any pair of primes ?

- ☐ Yes, we can change the logic for setting **flag** variable to True.
- ☐ Yes, we can change/increase the threshold for length of **list2** in the last **if** block.
- ☐ No, it is logically not possible.
- ☐ Yes, we can change the initial value of flag to True, instead of False.

No, the answer is incorrect.

Score: 0

Accepted Answers:

*Yes, we can change/increase the threshold for length of **list2** in the last **if** block.*

X

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outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

- ☐ Introduction to Dictionaries (unit? unit=104&lesson=105)
- ☐ Speech to Text : No need to write 01 (unit?

Week 5: Assignment 5

The due date for submitting this assignment has passed.

Due on 2024-08-28, 23:59 IST.

Assignment submitted on 2024-08-28, 09:40 IST

1) Which of the following is the correct way to add data with key as **CS101** and value **1 point** as **"Web Programming"** to a dictionary named **courseData**?

- ☐ `courseData["CS101"].append("Web Programming")`
- ☐ `courseData["CS101"]["Web Programming"]`
- ☐ `courseData["CS101"] = "Web Programming";`
- ☒ `courseData["CS101"] = "Web Programming"`

Yes, the answer is correct.

Score: 1

Accepted Answers:

`courseData["CS101"] = "Web Programming"`

2) What is the probability of Monty opening the door with goat, given the hypothesis **1 point** that you initially chose the door which has car ?

- ☐ 0.5
- ☐ 0.66
- ☐ 0.33
- ☒ 1

Yes, the answer is correct.

Score: 1

Accepted Answers:

1

unit=104&less
on=106)

☐ Speech to Text
: No need to
write 02 (unit?
unit=104&less
on=107)

☐ Speech to Text
: No need to
write 03 (unit?
unit=104&less
on=108)

☐ Monte Hall : 3
doors and a
twist 01 (unit?
unit=104&less
on=109)

☐ Monte Hall : 3
doors and a
twist 02 (unit?
unit=104&less
on=110)

☐ Rock, Paper
and Scissor :
Cheating not
allowed !! 01
(unit?
unit=104&less
on=111)

☐ Rock, Paper
and Scissor :
Cheating not
allowed !! 02
(unit?
unit=104&less
on=112)

☐ Rock, Paper
and Scissor :
Cheating not
allowed !! 03
(unit?
unit=104&less
on=113)

☐ Rock, Paper
and Scissor :
Cheating not
allowed !! 04
(unit?
unit=104&less
on=114)

3) What should be replaced with ? in line 10, so that there is high chance that **final_choice** is equal to 2 ? **1 point**

```

1  import random
2  initial_choice = random.randint(0, 2)
3  doors = ['goat', 'goat', 'car']
4
5  for i in range(3):
6      if i != initial_choice and doors[i] != 'car':
7          monty_opens = i
8          break
9
10     if ? :
11         for i in range(3):
12             if i != initial_choice and i != monty_opens:
13                 final_choice = i
14                 break
15     else:
16         final_choice = initial_choice

```

- ☒ True
- ☒ $(2^{**90}) \% 2 == 0$
- ☒ $3*((3^{**89}) + 3) \% 3 == 0$
- ☒ $(2^{**90}) \% \text{len}(\text{doors}) == 1$

Yes, the answer is correct.

Score: 1

Accepted Answers:

True

$(2^{**90}) \% 2 == 0$

$3*((3^{**89}) + 3) \% 3 == 0$

$(2^{**90}) \% \text{len}(\text{doors}) == 1$

4) Given that you have a sorted list of 1024 elements, what is the maximum number of **1 point** comparisons required to find the target element using binary search ? Also what is the number of comparisons to search such an element using linear search ?

- ☐ Binary: 10, Linear: 512
- ☒ Binary: 11, Linear: 1024
- ☐ Binary: 10, Linear: 1024
- ☐ Binary: 11, Linear: 512

No, the answer is incorrect.

Score: 0

Accepted Answers:

Binary: 10, Linear: 1024

5) What type of data is contained in a file with a .wav or .wave extension? **1 point**

- ☐ Log data
- ☒ Audio data

☐ Sorting and Searching : 20 questions
game 01 (unit? unit=104&less on=115)

☐ Sorting and Searching : 20 questions
game 02 (unit? unit=104&less on=116)

☐ Sorting and Searching : 20 questions
game 03 (unit? unit=104&less on=117)

☐ Sorting and Searching : 20 questions
game 04 (unit? unit=104&less on=118)

☐ Sorting and Searching : 20 questions
game 05 (unit? unit=104&less on=119)

☐ Sorting and Searching : 20 questions
game 06 (unit? unit=104&less on=120)

☐ Sorting and Searching : 20 questions
game 07 (unit? unit=104&less on=121)

☐ Sorting and Searching : 20 questions
game 08 (unit? unit=104&less on=122)

☒ **Quiz: Week 5: Assignment 5**

- ☐ Video data
☐ Image data

Yes, the answer is correct.
Score: 1

Accepted Answers:
Audio data

6) What does this program print in the end ?

1 point

```
import random
n=10
counter = 0
for i in range(n):
    choices = ["rock", "paper", "scissors"]
    choice1 = random.choice(choices)
    choice2 = random.choice(choices)
    if choice1 == choice2:
        counter += 1
print(counter/n)
```

- ☐ Fraction of throws where both players showed different symbol(rock/paper/scissors)
☐ Fraction of throws where both players showed rock.
☒ Fraction of throws where both players showed same symbol(rock/paper/scissors)
☐ Fraction of throws where both players showed paper.

Yes, the answer is correct.
Score: 1

Accepted Answers:
Fraction of throws where both players showed same symbol(rock/paper/scissors)

7) In binary search, what happens if the target value is greater than the middle element of the array?

1 point

- ☐ The search continues in the left half of the array.
☒ The search continues in the right half of the array.
☐ The search ends.
☐ The array is sorted again.

Yes, the answer is correct.
Score: 1

Accepted Answers:
The search continues in the right half of the array.

8) Which of the following is a requirement for binary search to work correctly?

1 point

- ☒ The list must be sorted.
☐ The list must contain only positive numbers.

(assessment?
name=462)

Week 5:
Programming
Assignment 1
(/noc24_cs113
/progassignment?
name=464)

Week 5:
Programming
Assignment 2
(/noc24_cs113
/progassignment?
name=465)

Week 5:
Programming
Assignment 3
(/noc24_cs113
/progassignment?
name=466)

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

Text
Transcripts
()

Download
Videos ()

Books ()

Problem
Solving
Session -
July 2024 ()

- ☐ The list must be of an even length.
- ☐ The list must contain unique elements.

Yes, the answer is correct.

Score: 1

Accepted Answers:

The list must be sorted.

9) Given an array [5, 3, 8, 4, 2], what will be the array after the third pass of Bubble Sort? **1 point**

- ☐ [3, 2, 4, 8, 5]
- ☒ [3, 2, 4, 5, 8]
- ☐ [2, 3, 4, 5, 8]
- ☐ [3, 5, 2, 4, 8]

Yes, the answer is correct.

Score: 1

Accepted Answers:

[3, 2, 4, 5, 8]

10) How many swaps are performed in iteration 3 for bubble sorting list [4,3,2,1]? Enter 0 if the list is sorted in less than 3 iterations.

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: Numeric) 1

1 point

X

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outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

- ☒ Substitution
Cipher -The
science of
secrecy (unit?
unit=124&less
on=125)

Week 6: Assignment 6

The due date for submitting this assignment has passed.

Due on 2024-09-04, 23:59 IST.

Assignment submitted on 2024-09-02, 15:27 IST

1) If n is a positive integer, what is the output of the function given input n ,

1 point

```
def mystery(n):  
    if n <= 0:  
        return 0  
    else:  
        return 1 + mystery(n - 1)
```

- ☐ Sum of numbers from 1 to n
- ☐ Sum of numbers from 1 to $n-1$
- ☐ $n-1$
- ☒ n

Yes, the answer is correct.

Score: 1

Accepted Answers:

 n

2) Which of the following are true about recursion?

1 point

- ☒ Recursion is a process in which a function calls itself as a subroutine.
- ☐ Recursion is a better alternative for performing repetitive tasks compared to iteration.

☐ Substitution Cipher -The science of secrecy 01 (unit? unit=124&less on=126)

☐ Substitution Cipher -The science of secrecy 02 (unit? unit=124&less on=127)

☐ Substitution Cipher -The science of secrecy 03 (unit? unit=124&less on=128)

☐ Tic Tac Toe - Down the memory Lane (unit? unit=124&less on=129)

☐ Tic Tac Toe - Down the memory Lane 01 (unit? unit=124&less on=130)

☐ Tic Tac Toe - Down the memory Lane 02 (unit? unit=124&less on=131)

☐ Tic Tac Toe - Down the memory Lane 03 (unit? unit=124&less on=132)

☐ Tic Tac Toe - Down the memory Lane 04 (unit? unit=124&less on=133)

☒ Recursion requires more resources compared to iteration.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Recursion is a process in which a function calls itself as a subroutine.

Recursion requires more resources compared to iteration.

3) What is the output of following code ?

1 point

```
def func(x):
    return x * 2

def func(x, y=3):
    return x + y

print(func(5))
```

- ☐ 10
- ☒ 8
- ☐ 5
- ☐ Error

Yes, the answer is correct.

Score: 1

Accepted Answers:

8

4) The letter 'e' is the most frequently occurring letter in the English language.

1 point

Suppose we apply a Substitution Cipher where 'e' is mapped to 'a', and all other letters are uniquely mapped to different letters. If we encrypt a very long English storybook using this cipher, will the frequency of 'a' be the highest in the encrypted text?

Hint: Search the internet for more info, if needed

- ☒ Yes, it would be same as 'e' in the original text
- ☐ Yes, it would be higher than 'e' in the original text.
- ☐ No, it would be lower than 'e' in the original text.
- ☐ No, we cannot predict

Yes, the answer is correct.

Score: 1

Accepted Answers:

Yes, it would be same as 'e' in the original text

5) Could we check frequency of letters in a long ciphertext and map them to frequency of letters in English to decrypt the message? **1 point**

☐ Tic Tac Toe -
Down the
memory Lane
05 (unit?
unit=124&less
on=134)

☐ Recursion
(unit?
unit=124&less
on=135)

☐ Recursion 01
(unit?
unit=124&less
on=136)

☐ Recursion 02
(unit?
unit=124&less
on=137)

☐ Recursion 03
(unit?
unit=124&less
on=138)

☐ Recursion 04
(unit?
unit=124&less
on=139)

☐ Recursion 05
(unit?
unit=124&less
on=140)

☐ Recursion 06
(unit?
unit=124&less
on=141)

☒ **Quiz: Week 6:
Assignment 6
(assessment?
name=467)**

☒ Week 6:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=468)

☒ Week 6:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=470)

Hint: Search the internet for more info, if needed.

- ☒ Yes, it is possible.
☐ No, it is not possible.

Yes, the answer is correct.
Score: 1

Accepted Answers:
Yes, it is possible.

6) What are drawbacks of using frequency analysis to decrypt a message that has been encrypted using Substitution Cipher? **1 point**

- ☒ It will not work if the cipher text is too small.
☐ It works flawlessly.
☒ It will not work if the encrypted text was previously encrypted using a different cipher, which could have removed patterns in common English.
☐ The frequency analysis method doesn't work at all for Substitution Cipher

Yes, the answer is correct.
Score: 1

Accepted Answers:

It will not work if the cipher text is too small.

It will not work if the encrypted text was previously encrypted using a different cipher, which could have removed patterns in common English.

7) If variable **dict_name** is a non-empty dictionary, what does dict_name.keys() return? **1 point**

- ☐ Returns nothing, but prints all the keys in the dictionary.
☒ Returns a list of all the keys in the dictionary.
☐ Returns a list of all the values in the dictionary.
☐ Returns a list of all the items in the dictionary

Yes, the answer is correct.
Score: 1

Accepted Answers:

Returns a list of all the keys in the dictionary.

8) Is Ceaser Cipher a type of Substitution Cipher? **1 point**

- ☒ Yes
☐ No

Yes, the answer is correct.
Score: 1

Accepted Answers:

Yes

9) What is the consequence of not having a base case in a recursive function? **1 point**

- ☒ The function will run infinitely.
☐ The function will run only once.
☐ The function will not run at all.

☒ Week 6:
Programming
Assignment 3
(/noc24_cs113
/progassignment?name=471)

☐ Week 6
Feedback
Form: The Joy
of Computing
using Python
(unit?
unit=124&less
on=142)

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

**Text
Transcripts
()**

**Download
Videos ()**

Books ()

**Problem
Solving
Session -
July 2024 ()**

☐ The function will run only for a fixed number of times.

Yes, the answer is correct.

Score: 1

Accepted Answers:

The function will run infinitely.

10) What are the number of possible final lines when someone wins, in a game of TicTac-Toe?

1 point

☐ 3

☒ 8

☐ 9

☐ 4

Yes, the answer is correct.

Score: 1

Accepted Answers:

8

X

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outlineAbout
NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

☐ Snakes and
Ladders - Not
on the Board
(unit?)

Week 7: Assignment 7

The due date for submitting this assignment has passed.

Due on 2024-09-11, 23:59 IST.

Assignment submitted on 2024-09-09, 23:43 IST

1) Which of the following methods is used to read the content of a CSV file in Python using the csv module? **1 point**

- ☒ csv.reader()
☐ csv.write()
☐ csv.load()
☐ csv.readfile()

Yes, the answer is correct.

Score: 1

Accepted Answers:

*csv.reader()*2) Which command is used to install a Python package using pip? **1 point**

- ☒ pip install package-name
☐ install pip package-name
☐ python install package-name
☐ pip package-name install

Yes, the answer is correct.

Score: 1

Accepted Answers:

*pip install package-name*3) What is the primary purpose of the gmplot library in Python? **1 point**

- ☐ To create 3D plots

unit=143&less
on=144)

☐ Snakes and
Ladders - Not
on the Board -
Part 01 (unit?
unit=143&less
on=145)

☐ Snakes and
Ladders - Not
on the Board -
Part 02 (unit?
unit=143&less
on=146)

☐ Snakes and
Ladders - Not
on the Board -
Part 03 (unit?
unit=143&less
on=147)

☐ Snakes and
Ladders - Not
on the Board -
Part 04 (unit?
unit=143&less
on=148)

☐ Snakes and
Ladders - Not
on the Board -
Part 05 (unit?
unit=143&less
on=149)

☐ Snakes and
Ladders - Not
on the Board -
Part 06 (unit?
unit=143&less
on=150)

☐ Spiral
Traversing -
Let's Animate
(unit?
unit=143&less
on=151)

☐ Spiral
Traversing -
Let's Animate -
Part 01 (unit?
unit=143&less
on=152)

- ☒ To plot data on Google Maps
- ☐ To generate matplotlib graphs
- ☐ To create dashboards

Yes, the answer is correct.

Score: 1

Accepted Answers:

To plot data on Google Maps

4) In a game of Snakes and Ladders, a player is currently on square 96. There is a snake on square 99 that sends the player back to square 78. If the player wishes to reach square 100 in one dice throw, what number must they roll on the dice?

4

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: Numeric) 4

1 point

5) In the same scenario, where the player is on square 96 and needs to roll a 4 to reach square 100, what is the probability of rolling this number on a fair six-sided die?

1 point

- ☐ 1/2
- ☐ 1/3
- ☐ 1/4
- ☒ 1/6

Yes, the answer is correct.

Score: 1

Accepted Answers:

1/6

6) Which of the following commands will draw a square using Python's turtle module? **1 point**

Turtle is imported in the following way-

import turtle as t

turtle = t.Turtle()

- ☒ for i in range(4):
 turtle.forward(100)
 turtle.left(90)
- ☒ for i in range(4):
 turtle.forward(100)
 turtle.right(90)
- ☒ for i in range(4):
 turtle.backward(100)
 turtle.left(90)
- ☒ for i in range(4):
 turtle.backward(100)
 turtle.right(90)

☐ Spiral Traversing - Let's Animate - Part 02 (unit? unit=143&less on=153)

☐ Spiral Traversing - Let's Animate - Part 03 (unit? unit=143&less on=154)

☐ Spiral Traversing - Let's Animate - Part 04 (unit? unit=143&less on=155)

☐ Spiral Traversing - Let's Animate - Part 05 (unit? unit=143&less on=156)

☐ Spiral Traversing - Let's Animate - Part 06 (unit? unit=143&less on=157)

☐ Spiral Traversing - Let's Animate - Part 07 (unit? unit=143&less on=158)

☐ GPS - Track the route (unit? unit=143&less on=159)

☐ GPS - Track the route - Part 01 (unit? unit=143&less on=160)

☐ GPS - Track the route - Part 02 (unit? unit=143&less on=161)

Yes, the answer is correct.

Score: 1

Accepted Answers:

```
for i in range(4):
    turtle.forward(100)
    turtle.left(90)
```

```
for i in range(4):
    turtle.forward(100)
    turtle.right(90)
```

```
for i in range(4):
    turtle.backward(100)
    turtle.left(90)
```

```
for i in range(4):
    turtle.backward(100)
    turtle.right(90)
```

7) Does the turtle module in Python allow you to draw complex shapes on the screen? **1 point**

☒ Yes

☐ No

Yes, the answer is correct.

Score: 1

Accepted Answers:

Yes

8) What is the purpose of the turtle.penup() and turtle.pendown() commands in Python's turtle module? **1 point**

☒ To stop the turtle from drawing and then resume drawing at a new position

☐ To change the color of the turtle's pen

☐ To speed up or slow down the drawing speed of the turtle

Yes, the answer is correct.

Score: 1

Accepted Answers:

To stop the turtle from drawing and then resume drawing at a new position

9) What is the default drawing state of the turtle when a new turtle object is created in Python's turtle module? **1 point**

☐ The turtle's pen is up, so it does not draw while moving.

☒ The turtle's pen is down, so it draws while moving.

☐ The turtle is hidden, so it does not appear on the screen.

☐ The turtle starts with a circular shape.

Yes, the answer is correct.

Score: 1

Accepted Answers:

The turtle's pen is down, so it draws while moving.

10) Which of the following commands is used to open an image file using Python's PIL (Pillow) library? **1 point**

☐ `img = PIL.Image.open('image.jpg')`

☐ GPS - Track the route - Part 03 (unit? unit=143&lesson=162)

☐ GPS - Track the route - Part 04 (unit? unit=143&lesson=163)

☒ **Quiz: Week 7: Assignment 7 (assessment? name=472)**

☒ Week 7: Programming Assignment 1 (/noc24_cs113/progassignment?name=473)

☒ Week 7: Programming Assignment 2 (/noc24_cs113/progassignment?name=474)

☒ Week 7: Programming Assignment 3 (/noc24_cs113/progassignment?name=475)

☐ Week 7 Feedback Form: The Joy of Computing using Python (unit? unit=143&lesson=164)

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

- ☒ `img = Image.open('image.jpg')`
☐ `img = open_image('image.jpg')`
☐ `img = PIL.open_image('image.jpg')`

Yes, the answer is correct.

Score: 1

Accepted Answers:

`img = Image.open('image.jpg')`

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work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

☐ Practice is the
key (unit?
unit=78&lesso
n=79)

☐ Magic Square:
Hit and Trial
01 (unit?
unit=78&lesso
n=80)

☐ Magic Square:
Hit and Trial

Week 8: Assignment 8

The due date for submitting this assignment has passed.

Due on 2024-09-18, 23:59 IST.

Assignment submitted on 2024-09-14, 12:26 IST

1) Which of the following is a valid way to create a tuple in Python?

1 point

- ☐ `t = [1, 2, 3]`
☒ `t = (1, 2, 3)`
☐ `t = {1, 2, 3}`
☒ `t = 1, 2, 3`

Yes, the answer is correct.

Score: 1

Accepted Answers:

`t = (1, 2, 3)``t = 1, 2, 3`

2) Which of the following operations is valid on a tuple?

1 point

- ☐ `t[1] = 4`
☐ `t.append(4)`
☒ `t = t + (4,)`
☐ `del t[1]`

Yes, the answer is correct.

Score: 1

Accepted Answers:

`t = t + (4,)`

3) What will the following code output?

1 point

02 (unit?
unit=78&lesso
n=81)

☐ Magic Square:
Hit and Trial
03 (unit?
unit=78&lesso
n=82)

☐ Magic Square:
Hit and Trial
04 (unit?
unit=78&lesso
n=83)

☐ Magic Square:
Hit and Trial
05 (unit?
unit=78&lesso
n=84)

☐ Let's program
and play (unit?
unit=78&lesso
n=85)

☐ Dobble Game
- Spot the
similarity 01
(unit?
unit=78&lesso
n=86)

☐ Dobble Game
- Spot the
similarity 02
(unit?
unit=78&lesso
n=87)

☐ Dobble Game
- Spot the
similarity 03
(unit?
unit=78&lesso
n=88)

☐ Dobble Game
- Spot the
similarity 04
(unit?
unit=78&lesso
n=89)

☐ What is your
date of birth?
(unit?
unit=78&lesso
n=90)

```
t = [1, 2, 3]
print(type((t,t)))
```

- ☐ < class 'list' >
☐ < class 'set' >
☒ < class 'tuple' >
☐ Error

Yes, the answer is correct.
Score: 1

Accepted Answers:
< class 'tuple' >

4) What is the primary purpose of the **matplotlib.pyplot** module in Python?

1 point

- ☐ To perform matrix operations.
☐ To handle file I/O operations.
☒ To generate and customize visualizations like plots and graphs.
☐ To manipulate and process images.

Yes, the answer is correct.
Score: 1

Accepted Answers:

To generate and customize visualizations like plots and graphs.

5) Which of the following statements is true about anagrams?

1 point

- ☐ Two strings of different lengths can be anagrams.
☐ Two strings are anagrams if they contain the same characters in the same order.
☒ Two strings are anagrams if they contain the same characters in different orders.

Yes, the answer is correct.
Score: 1

Accepted Answers:

Two strings are anagrams if they contain the same characters in different orders.

6) Every character, whether an alphabet, digit, or special character, has an ASCII value. Which of the following methods is used to find the ASCII value ?

1 point

- ☐ ASCII('a')
☒ ord('a')
☐ int('a')
☐ ASC_val('a')

Yes, the answer is correct.
Score: 1

Accepted Answers:

ord('a')

7) Which of the following libraries is commonly used to determine the intensity of emotions in sentiment analysis?

1 point

- ☒ VADER

☐ Birthday Paradox - Find your twin 01 (unit? unit=78&lesson=91)

☐ Birthday Paradox - Find your twin 02 (unit? unit=78&lesson=92)

☐ Birthday Paradox - Find your twin 03 (unit? unit=78&lesson=93)

☐ Birthday Paradox - Find your twin 04 (unit? unit=78&lesson=94)

☐ Birthday Paradox - Find your twin 05 (unit? unit=78&lesson=95)

☐ What's your favourite movie? (unit? unit=78&lesson=96)

☐ Guess the Movie Name 01 (unit? unit=78&lesson=97)

☐ Guess the Movie Name 02 (unit? unit=78&lesson=98)

☐ Guess the Movie Name 03 (unit? unit=78&lesson=99)

- ☐ Numpy
- ☐ Pandas
- ☐ SciPy

Yes, the answer is correct.

Score: 1

Accepted Answers:

VADER

8) Which of the following Python code snippets correctly checks if two strings are anagrams? **1 point**

- ☒

```
def are_anagrams(str1, str2):
    return sorted(str1) == sorted(str2)
```
- ☐

```
def are_anagrams(str1, str2):
    return set(str1) == set(str2)
```
- ☐

```
def are_anagrams(str1, str2):
    return str1 == str2[::-1]
```
- ☐

```
def are_anagrams(str1, str2):
    return len(str1) == len(str2)
```

Yes, the answer is correct.

Score: 1

Accepted Answers:

*def are_anagrams(str1, str2):
 return sorted(str1) == sorted(str2)*

9) Why is gambling generally a bad decision ? **1 point**

- ☒ Because you will lose more money than you win over time.
- ☐ Because the probability of winning is always 0.
- ☐ Because you will always win.
- ☐ Because the amount of money you can win is always greater than the amount you lost over time

Yes, the answer is correct.

Score: 1

Accepted Answers:

Because you will lose more money than you win over time.

10) True or False: A significant amount of information can be extracted from an image by applying the appropriate image enhancement techniques **1 point**

- ☒ True
- ☐ False

Yes, the answer is correct.

Score: 1

Accepted Answers:

True

- ☐ Guess the Movie Name 04 (unit? unit=78&lesson=100)
- ☐ Guess the Movie Name 05 (unit? unit=78&lesson=101)
- ☐ Guess the Movie Name 06 (unit? unit=78&lesson=102)
- ☐ Quiz: Week 4: Assignment 4 (assessment? name=454)
- ☒ Week 4: Programming Assignment 1 (/noc24_cs113 /progassignment?name=459)
- ☒ Week 4: Programming Assignment 2 (/noc24_cs113 /progassignment?name=461)
- ☒ Week 4: Programming Assignment 3 (/noc24_cs113 /progassignment?name=460)
- ☒ Week 4 Feedback Form: The Joy of Computing using Python (unit? unit=78&lesson=103)

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

- ☐ Tuples- Python Data Structure (unit? unit=165&lesson=166)
- ☐ Lottery Simulation - Profit or Loss (unit? unit=165&lesson=167)
- ☐ Lottery Simulation - Profit or Loss - Part 01 (unit? unit=165&lesson=168)
- ☐ Lottery Simulation - Profit or Loss - Part 02 (unit? unit=165&lesson=169)
- ☐ Lottery Simulation - Profit or Loss - Part 03 (unit? unit=165&lesson=170)
- ☐ Lottery Simulation - Profit or Loss - Part 04 (unit? unit=165&lesson=171)
- ☐ Lottery Simulation - Profit or Loss - Part 05 (unit? unit=165&lesson=172)
- ☐ Lottery Simulation - Profit or Loss - Part 06 (unit? unit=165&lesson=173)
- ☐ Image Processing -

Enhance your
images (unit?
unit=165&less
on=174)

☐ Image
Processing -
Enhance your
images - Part
01 (unit?
unit=165&less
on=175)

☐ Image
Processing -
Enhance your
images - Part
02 (unit?
unit=165&less
on=176)

☐ Image
Processing -
Enhance your
images - Part
03 (unit?
unit=165&less
on=177)

☐ Anagrams
(unit?
unit=165&less
on=178)

☐ Anagrams -
Part 01 (unit?
unit=165&less
on=179)

☐ Anagrams -
Part 02 (unit?
unit=165&less
on=180)

☐ Anagrams -
Part 03 (unit?
unit=165&less
on=181)

☐ Facebook
Sentiment
Analysis (unit?
unit=165&less
on=182)

☐ Facebook
Sentiment
Analysis - Part
01 (unit?

unit=165&less
on=183)

☐ Facebook
Sentiment
Analysis - Part
02 (unit?
unit=165&less
on=184)

☐ Facebook
Sentiment
Analysis - Part
03 (unit?
unit=165&less
on=185)

☐ Facebook
Sentiment
Analysis - Part
04 (unit?
unit=165&less
on=186)

☒ **Quiz: Week 8:
Assignment 8
(assessment?
name=480)**

☒ Week 8:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=476)

☒ Week 8:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=478)

☒ Week 8:
Programming
Assignment 3
(/noc24_cs113
/progassignme
nt?name=479)

☐ Week 8
Feedback
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of Computing
using Python
(unit?
unit=165&less
on=187)

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

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Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 9: Assignment 9

The due date for submitting this assignment has passed.

Due on 2024-09-25, 23:59 IST.

Assignment submitted on 2024-09-20, 18:15 IST

1) 'nltk.download()' function downloads necessary packages for the Natural Language Toolkit (NLTK) library? **1 point**

- ☒ True
☐ False

Yes, the answer is correct.
Score: 1

Accepted Answers:
True

2) Which of the following best defines a complete graph?

1 point

- ☒ A graph where every pair of distinct vertices is connected by a unique edge
☐ A graph with no edges
☐ A graph with a single vertex
☐ A graph with at least one loop

Yes, the answer is correct.
Score: 1

Accepted Answers:
A graph where every pair of distinct vertices is connected by a unique edge

3) How many edges are there in a complete graph with 4 nodes?

1 point

- ☒ 6
☐ 8
☐ 12

☐ Natural Language Processing - Author Stylometry (unit? unit=188&lesson=189)

☐ Natural Language Processing - Author Stylometry - Part 01 (unit? unit=188&lesson=190)

☐ Natural Language Processing - Author Stylometry - Part 02 (unit? unit=188&lesson=191)

☐ Natural Language Processing - Author Stylometry - Part 03 (unit? unit=188&lesson=192)

☐ Natural Language Processing - Author Stylometry - Part 04 (unit? unit=188&lesson=193)

☐ Natural Language Processing - Author Stylometry - Part 05 (unit? unit=188&lesson=194)

☐ Natural Language Processing - Author Stylometry -

☐ 16

Yes, the answer is correct.

Score: 1

Accepted Answers:

6

4) Which Python library is most commonly used for working with graphs related to networks?

1 point

- ☐ Random
☐ Pandas
☐ NumPy
☒ NetworkX

Yes, the answer is correct.

Score: 1

Accepted Answers:

NetworkX

5) Gephi is:

1 point

- ☐ A Python library for linear algebra
☒ A software for visualizing and analyzing large networks
☐ A tool for data cleaning and preprocessing
☐ A Python library for building statistical models

Yes, the answer is correct.

Score: 1

Accepted Answers:

A software for visualizing and analyzing large networks

6) How many attributes typically define a color in digital representations?

1 point

- ☐ 1
☐ 2
☒ 3
☐ 9

Yes, the answer is correct.

Score: 1

Accepted Answers:

3

7) What is the degree of a node in a graph?

1 point

- ☒ The number of edges connected to the node
☐ The shortest path between two nodes
☐ The number of nodes in the graph
☐ The distance from the node to the center of the graph

Yes, the answer is correct.

Score: 1

Accepted Answers:

The number of edges connected to the node

Part 06 (unit?
unit=188&less
on=195)

☐ Natural
Language
Processing -
Author
Stylometry -

Part 07 (unit?
unit=188&less
on=196)

☐ Natural
Language
Processing -
Author
Stylometry -

Part 08 (unit?
unit=188&less
on=197)

☐ Natural
Language
Processing -
Author
Stylometry -

Part 09 (unit?
unit=188&less
on=198)

☐ Natural
Language
Processing -
Author
Stylometry -

Part 10 (unit?
unit=188&less
on=199)

☐ Introduction to
Networkx -
Part 01 (unit?
unit=188&less
on=200)

☐ Introduction to
Networkx -
Part 02 (unit?
unit=188&less
on=201)

☐ Six Degrees of
Separation :
Meet your
favourites
(unit?
unit=188&less
on=202)

8) What is the primary goal of stylometry?

1 point

- ☒ To analyze the style and structure of literary works for authorship attribution
- ☐ To create stylized graphics for digital art
- ☐ To study phonology of languages
- ☐ To enhance the readability of texts by adjusting font styles

Yes, the answer is correct.

Score: 1

Accepted Answers:

To analyze the style and structure of literary works for authorship attribution

9) Given the following Python code, what is printed in the end?

1 point

```
x = ["apple", "banana", "cherry", "date"]
```

```
k = 0
```

```
for item in x:
```

```
    k += len(item)
```

```
print(k)
```

- ☐ 4
- ☒ 21
- ☐ 24
- ☐ 26

Yes, the answer is correct.

Score: 1

Accepted Answers:

21

10) How can you estimate the area of a sub-region within a larger region by randomly throwing points in the larger region?

1 point

- ☐ By counting the total number of points and calculating the sum of their distances from the center
- ☒ By calculating the proportion of points that land in the sub-region compared to the total number of points in the larger region
- ☐ By calculating the distance between each point and the boundary of the region
- ☐ By averaging the coordinates of all the points that land in the larger region

Yes, the answer is correct.

Score: 1

Accepted Answers:

By calculating the proportion of points that land in the sub-region compared to the total number of points in the larger region

☐ Six Degrees of Separation :
Meet your favourites -
Part 01 (unit?
unit=188&less
on=203)

☐ Six Degrees of Separation :
Meet your favourites -
Part 02 (unit?
unit=188&less
on=204)

☐ Six Degrees of Separation :
Meet your favourites -
Part 03 (unit?
unit=188&less
on=205)

☐ Area
Calculation -
Don't Measure
(unit?
unit=188&less
on=206)

☐ Area
Calculation -
Don't Measure
- Part 01 (unit?
unit=188&less
on=207)

☐ Area
Calculation -
Don't Measure
- Part 02 (unit?
unit=188&less
on=208)

☐ Area
Calculation -
Don't Measure
- Part 03 (unit?
unit=188&less
on=209)

☐ Area
Calculation -
Don't Measure
- Part 04 (unit?
unit=188&less
on=210)

☐ Area
Calculation -
Don't Measure
- Part 05 (unit?
unit=188&less
on=211)

☐ Area
Calculation -
Don't Measure
- Part 06 (unit?
unit=188&less
on=212)

☐ Week 9
Feedback
Form: The Joy
of Computing
using Python
(unit?
unit=188&less
on=213)

☒ **Quiz: Week 9:
Assignment 9
(assessment?
name=485)**

☒ Week 9:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=482)

☒ Week 9:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=483)

☒ Week 9:
Programming
Assignment 3
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Week 10 ()

Week 11 ()

Week 12 ()

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Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10: Assignment 10

The due date for submitting this assignment has passed.

Due on 2024-10-02, 23:59 IST.

As per our records you have not submitted this assignment.

1) What will be the output of the following Python code?

1 point

```
s = "Hello, World!"  
print (s[7:12 ])
```

- ☐ "World"
- ☐ "World!"
- ☐ "Worl"
- ☐ "orld"

No, the answer is incorrect.
Score: 0

Accepted Answers:
"World"

2) Which string method would you use to remove all leading and trailing whitespace from a string in Python?

1 point

- ☐ strip()
- ☐ split()
- ☐ replace()
- ☐ join()

No, the answer is incorrect.
Score: 0

Accepted Answers:
strip()

3) Given the string s = "PythonProgramming", what does s [::2] return?

1 point



Week 10 ()

☐ FLAMES -
Part 01 (unit?
unit=214&less
on=215)

☐ FLAMES -
Part 02 (unit?
unit=214&less
on=216)

☐ FLAMES -
Part 03 (unit?
unit=214&less
on=217)

☐ FLAMES -
Part 04 (unit?
unit=214&less
on=218)

☐ FLAMES -
Part 05 (unit?
unit=214&less
on=219)

☐ FLAMES -
Part 06 (unit?
unit=214&less
on=220)

☐ Data
Compression -
Part 01 (unit?
unit=214&less
on=221)

☐ Data
Compression -
Part 02 (unit?
unit=214&less
on=222)

☐ Data
Compression -
Part 03 (unit?
unit=214&less
on=223)

☐ Data
Compression -
Part 04 (unit?
unit=214&less
on=224)

☐ Data
Compression -
Part 05 (unit?

☐ "PythonProgramming"

☐ "Pto rgamn"

☐ "PyonPormig"

☐ "PtoPormig"

No, the answer is incorrect.

Score: 0

Accepted Answers:

"PtoPormig"

4) Why are names often converted to lowercase and spaces removed when implementing the FLAMES game in Python?

1 point

☐ To increase game difficulty

☐ To ensure consistent character comparison

☐ Because uppercase letters are not supported in Python strings

☐ To encrypt the names for privacy

No, the answer is incorrect.

Score: 0

Accepted Answers:

To ensure consistent character comparison

5) Given the names "Alice" and "Bob", what is the FLAMES result of their relationship according to the FLAMES game?

1 point

☐ Friends

☐ Love

☐ Affection

☐ Marriage

☐ Enemy

☐ Siblings

No, the answer is incorrect.

Score: 0

Accepted Answers:

Affection

6) Given `a = np.array ([1, 2, 3, 4, 5])`, what does `print(a[1:4])` output?

1 point

☐ [1 2 3]

☐ [2 3 4]

☐ [2 3 4 5]

☐ [1 2 3 4]

No, the answer is incorrect.

Score: 0

Accepted Answers:

[2 3 4]

7) In the NumPy array `arr = np.array ([[1,2,3],[4,5,6],[7,8,9]])`, what is the value of `arr[1,2]`?

unit=214&less
on=225)

☐ Week 10
Feedback
Form: The Joy
of Computing
using Python
(unit?
unit=214&less
on=226)

☐ **Quiz: Week
10:
Assignment
10
(assessment?
name=491)**

☒ Week 10:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=486)

☒ Week 10:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=487)

☒ Week 10:
Programming
Assignment 3
(/noc24_cs113
/progassignme
nt?name=490)

Week 11 ()

Week 12 ()

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- ☐ 5
☐ 6
☐ 2
☐ 8

No, the answer is incorrect.
Score: 0

Accepted Answers:
6

8) What is the output of the following Python code?

1 point

```
s = "abcdef"
print (s[1:5:2])
```

- ☐ "bd"
☐ "bcd"
☐ "ace"
☐ "be"

No, the answer is incorrect.
Score: 0

Accepted Answers:
"bd"

9) Can numpy be used when working with images in Python?

1 point

- ☐ Yes
☐ No

No, the answer is incorrect.
Score: 0

Accepted Answers:
Yes

10) When comparing lossy and lossless compression methods, which of the following statements is true?

1 point

- ☐ Lossy compression reduces file size without any loss of quality.
☐ Lossless compression reduces file size without any loss of quality.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Lossless compression reduces file size without any loss of quality.



**Session -
July 2024 ()**



X

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NPTEL ()How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 11: Assignment 11

The due date for submitting this assignment has passed.

Due on 2024-10-09, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which Python library is commonly used for automating web browsers for tasks like testing or web scraping? **1 point**

- ☐ datetime
- ☐ selenium
- ☐ chrome
- ☐ webdriver

No, the answer is incorrect.

Score: 0

Accepted Answers:

selenium

2) In Selenium, what is the purpose of the WebDriver (e.g., `webdriver.Chrome()`)? **1 point**

- ☐ To interact with databases
- ☐ To send HTTP requests
- ☐ To control a web browser programmatically
- ☐ To parse HTML and XML documents

No, the answer is incorrect.

Score: 0

Accepted Answers:

To control a web browser programmatically

3) Which method is used in Selenium to open a specific URL in the web browser? **1 point**

- ☐ driver.open(url)
- ☐ driver.load(url)

Week 10 ()**Week 11 ()**

- ☐ Browser Automation Whatsapp using Python - Part 01 (unit? unit=227&less on=228)
- ☐ Browser Automation Whatsapp using Python - Part 02 (unit? unit=227&less on=229)
- ☐ Browser Automation Whatsapp using Python - Part 03 (unit? unit=227&less on=230)
- ☐ Browser Automation Whatsapp using Python - Part 04 (unit? unit=227&less on=231)
- ☐ Fun with Calendar - Part 01 (unit? unit=227&less on=232)
- ☐ Fun with Calendar - Part 02 (unit? unit=227&less on=233)
- ☐ Fun with Calendar - Part 03 (unit? unit=227&less on=234)
- ☐ Fun with Calendar - Part 04 (unit?

- ☐ driver.navigate(url)
- ☐ driver.get(url)

No, the answer is incorrect.

Score: 0

Accepted Answers:

driver.get(url)

4) In Selenium, how can you simulate pressing the Enter key in a text input field?

1 point

- ☐ input field.send keys(Keys.ENTER)
- ☐ input field.submit()
- ☐ input field.send keys(Keys.RETURN)
- ☐ input field.press('Enter')

No, the answer is incorrect.

Score: 0

Accepted Answers:

input field.send keys(Keys.RETURN)

5) How can you get the current local date and time in Python using the **datetime** module?

1 point

- ☐ datetime.date.today()
- ☐ datetime.datetime.now()
- ☐ datetime.time.now()

No, the answer is incorrect.

Score: 0

Accepted Answers:

datetime.datetime.now()

6) Which function from the **calendar** module can be used to create a formatted string representing a month's calendar?

1 point

- ☐ calendar.printmonth()
- ☐ calendar.month()
- ☐ calendar.monthcalendar()

No, the answer is incorrect.

Score: 0

Accepted Answers:

calendar.month()

7) Which function would you use to replace characters in a string in Python?

1 point

- ☐ string.modify()
- ☐ string.replace(old, new)
- ☐ string.remove(old)
- ☐ string.update(new)

No, the answer is incorrect.

Score: 0

Accepted Answers:

string.replace(old, new)

unit=227&less
on=235)

☐ Fun with
Calendar -
Part 05 (unit?
unit=227&less
on=236)

☐ Fun with
Calendar -
Part 06 (unit?
unit=227&less
on=237)

☐ Fun with
Calendar -
Part 07 (unit?
unit=227&less
on=238)

☐ Fun with
Calendar -
Part 08 (unit?
unit=227&less
on=239)

☐ Fun with
Calendar -
Part 09 (unit?
unit=227&less
on=240)

☐ Fun with
Calendar -
Part 10 (unit?
unit=227&less
on=241)

☐ Fun with
Calendar -
Part 11 (unit?
unit=227&less
on=242)

☐ Fun with
Calendar -
Part 12 (unit?
unit=227&less
on=243)

☐ **Quiz: Week
11:
Assignment
11
(assessment?
name=499)**

☒ **Week 11:
Programming**

8) Which of the following statements correctly imports the **datetime** module in Python? **1 point**

- ☐ import datetime
☐ from datetime import datetime
☐ import datetime as dt
☐ All of the given options

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the given options

9) What does the following Python code output?

1 point

```
import calendar
print(calendar.isleap(2024))
```

- ☐ True
☐ False
☐ 2024.0
☐ None

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

10) Using the datetime module, how can you print the current date 7 times, each time increasing the day by 1 from the current date? **1 point**

- ☐ for i in range(7):
 print(datetime.datetime.now() + datetime.timedelta(days=i))
☐ for i in range(7):
 print(datetime.date.today() + datetime.timedelta(days=i))
☐ for i in range(7):
 print(datetime.datetime.today().add(days=i))
☐ for i in range(7):
 print(datetime.date.now().add(days=i))

No, the answer is incorrect.
Score: 0

Accepted Answers:
*for i in range(7):
 print(datetime.date.today() + datetime.timedelta(days=i))*

Assignment 1
(/noc24_cs113
/progassignment?name=493)

☒ Week 11:
Programming
Assignment 2
(/noc24_cs113
/progassignment?name=495)

☒ Week 11:
Programming
Assignment 3
(/noc24_cs113
/progassignment?name=496)

☐ Week 11
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of Computing
using Python
(unit?
unit=227&less
on=244)

Week 12 ()

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online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 12: Assignment 12

The due date for submitting this assignment has passed.

Due on 2024-10-16, 23:59 IST.

Assignment submitted on 2024-10-16, 20:35 IST

1) What is the key operation performed when the number n in the Collatz Conjecture is **1 point** even?

- ☐ Add 1
- ☐ Multiply by 3 and add 1
- ☒ Divide by 2
- ☐ Subtract 1

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Divide by 2*2) What happens to an odd number n in the Collatz Conjecture sequence?**1 point**

- ☐ It is divided by 2
- ☐ It remains unchanged
- ☒ It is replaced by $n \times 3 + 1$
- ☐ It is replaced by $n - 1$

Yes, the answer is correct.

Score: 1

Accepted Answers:

It is replaced by $n \times 3 + 1$

3) What is the ultimate goal of the Collatz Conjecture sequence?

1 point

Week 10 ()**Week 11 ()****Week 12 ()**

☐ Page Rank -
How does
Google Work ?
- Part 01 (unit?
unit=245&less
on=246)

☐ Page Rank -
How does
Google Work ?
- Part 02 (unit?
unit=245&less
on=247)

☐ Page Rank -
How does
Google Work ?
- Part 03 (unit?
unit=245&less
on=248)

☐ Page Rank -
How does
Google Work ?
- Part 04 (unit?
unit=245&less
on=249)

☐ Page Rank -
How does
Google Work ?
- Part 05 (unit?
unit=245&less
on=250)

☐ Page Rank -
How does
Google Work ?
- Part 06 (unit?
unit=245&less
on=251)

☐ Page Rank -
How does
Google Work ?
- Part 07 (unit?
unit=245&less
on=252)

☐ Page Rank -
How does
Google Work ?

- ☐ Reach the number 0
- ☒ Return to the starting number
- ☐ Reach the number 1
- ☐ Cycle through odd numbers

No, the answer is incorrect.

Score: 0

Accepted Answers:

Reach the number 1

4) Which of the following best describes the Collatz Conjecture?

1 point

- ☐ It has been proven for all natural numbers
- ☒ It remains an unsolved problem in mathematics
- ☐ It is a trivial problem with a simple solution
- ☐ It only applies to prime numbers

Yes, the answer is correct.

Score: 1

Accepted Answers:

It remains an unsolved problem in mathematics

5) What is the main idea behind the PageRank algorithm used by Google?

1 point

- ☐ Count the number of keywords on a page
- ☒ Rank pages based on random walks on a graph of web links
- ☐ Rank pages based on user reviews
- ☐ Rank pages alphabetically

Yes, the answer is correct.

Score: 1

Accepted Answers:

Rank pages based on random walks on a graph of web links

6) In PageRank, what happens when a page has a higher number of inbound links from other important pages?

1 point

- ☐ Its rank decreases due to the load on the server
- ☒ Its rank increases
- ☐ Its rank remains unchanged
- ☐ It is marked as a less relevant page

Yes, the answer is correct.

Score: 1

Accepted Answers:

Its rank increases

7) Which technique is used in the PageRank algorithm to determine the rank of a web page?

1 point

- ☐ Depth-first search
- ☐ Hyperlink analysis
- ☒ Random walk simulation

- Part 08 (unit? unit=245&less on=253)

☐ Page Rank - How does Google Work ? - Part 09 (unit? unit=245&less on=254)

☐ Page Rank - How does Google Work ? - Part 10 (unit? unit=245&less on=255)

☐ Page Rank - How does Google Work ? - Part 11 (unit? unit=245&less on=256)

☐ Page Rank - How does Google Work ? - Part 12 (unit? unit=245&less on=257)

☐ Page Rank - How does Google Work ? - Part 13 (unit? unit=245&less on=258)

☐ Page Rank - How does Google Work ? - Part 14 (unit? unit=245&less on=259)

☐ Page Rank - How does Google Work ? - Part 15 (unit? unit=245&less on=260)

☐ Page Rank - How does Google Work ? - Part 16 (unit? unit=245&less on=261)

☐ Data scraping

Yes, the answer is correct.
Score: 1

Accepted Answers:
Random walk simulation

8) PageRank relies heavily on the structure of the:

1 point

- ☐ Web page content
- ☒ Hyperlink network between web pages
- ☐ User interaction data
- ☐ Server location

Yes, the answer is correct.
Score: 1

Accepted Answers:
Hyperlink network between web pages

9) PageRank was developed primarily to solve which problem?

1 point

- ☐ Calculating the shortest path in a network
- ☒ Ranking the importance of web pages on the internet
- ☐ Counting the total number of web pages
- ☐ Reducing the size of search engine databases

Yes, the answer is correct.
Score: 1

Accepted Answers:
Ranking the importance of web pages on the internet

10) For which values between 200 and 3000 does the Collatz Conjecture not converge to 1? **1 point**

- ☐ 2498.0
- ☐ 1576.0
- ☐ 2789.0
- ☒ None of the given options

Yes, the answer is correct.
Score: 1

Accepted Answers:
None of the given options

☐ Collatz
Conjecture -
Part 01 (unit?
unit=245&less
on=262)

☐ Collatz
Conjecture -
Part 02 (unit?
unit=245&less
on=263)

☐ JOC
Conclusion
(unit?
unit=245&less
on=264)

☒ **Quiz: Week
12:
Assignment
12
(assessment?
name=500)**

☒ Week 12:
Programming
Assignment 1
(/noc24_cs113
/progassignme
nt?name=494)

☒ Week 12:
Programming
Assignment 2
(/noc24_cs113
/progassignme
nt?name=497)

☒ Week 12:
Programming
Assignment 3
(/noc24_cs113
/progassignme
nt?name=498)

☐ Week 12
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Form: The Joy
of Computing
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