

Book_28_Apr_2024[1].pdf | Inbox (1,417) - 220301107@raj... | UNIT IV- Correlation and Spect... | Unit III- Random Process | Week3_coding: Attempt review

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REC-PS SUSHMITHA SREE S 2022-BIOMED-B S2

	Input	Expected	Got	
✓	8 3	OUT	OUT	✓
✓	8 5	IN	IN	✓
✓	20 9	OUT	OUT	✓
✓	50 31	IN	IN	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Finish review

Week3_mcq Jump to... Iteration control structures ▶

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input	result
8 3	OUT

Answer: (penalty regime: 0 %)

```
1 def allowedin(assignedproblems,solvedproblems):
2     if solvedproblems>=(assignedproblems/2):
3         return 'IN'
4     else:
5         return 'OUT'
6 def main():
7     assignedproblems=int(input())
8     solvedproblems=int(input())
9     result=allowedin(assignedproblems,solvedproblems)
10    print(result)
11    if __name__ == '__main__':
12        main()
```

Input	Expected	Got	
✓ 8 3	OUT	OUT	✓

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Question 10
Correct
Mark 1.00 out of 1.00
Flag question

IN / OUT

Ms. Sita, the faculty handling programming lab for you is very strict. Your seniors have told you that she will not allow you to enter the week's lab if you have not completed atleast half the number of problems given last week. Many of you didn't understand this statement and so they requested the good programmers from your batch to write a program to find whether a student will be allowed into a week's lab given the number of problems given last week and the number of problems solved by the student in that week.

Input Format:

Input consists of 2 integers.

The first integer corresponds to the number of problems given and the second integer corresponds to the number of problems solved.

Output Format:

Output consists of the string "IN" or "OUT".

Sample Input and Output:

Input

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Answer: (penalty regime: 0 %)

```
1 def daysinamonth(month):  
2     #Define a dictionary with the number of days for each month  
3     months={  
4         'January':31,  
5         'February':28 or 29',  
6         'March':31,  
7         'April':30,  
8         'May':31,  
9         'June':30,  
10        'July':31,  
11        'August':31,  
12        'September':30,  
13        'November':30,  
14        'December':31  
15    }  
16    return months.get(month,'invalid month')  
17 def main():  
18     month=input()  
19     days=daysinamonth(month)  
20     print(f'{month} has {days} days in it.')  
21 if __name__ == '__main__':  
22     main()  
23  
24
```

Input	Expected	Got	
✓ February	February has 28 or 29 days in it.	February has 28 or 29 days in it.	✓
✓ March	March has 31 days in it.	March has 31 days in it.	✓

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Question 9
Correct
Mark 1.00 out of 1.00
Flag question

The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display "28 or 29 days" for February so that leap years are addressed.

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Sample Input 2

March

Sample Output 2

March has 31 days in it.

Sample Input 3

April

Sample Output 3

April has 30 days in it.

For example:

Input	Result
February	February has 28 or 29 days in it.

Answer: (penalty regime: 0 %)

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Answer: (penalty regime: 0 %)

```
1 def is_pythagorean_triple(a,b,c):
2     if a*a+b*b==c*c or a*a+c*c==b*b or b*b+c*c==a*a:
3         return 'yes'
4     else:
5         return 'no'
6 def main():
7     a=int(input())
8     b=int(input())
9     c=int(input())
10    result=is_pythagorean_triple(a,b,c)
11    print(result)
12 if __name__ == '__main__':
13     main()
14
```

	Input	Expected	Got	
✓	3	yes	yes	✓
	5			
	4			
✓	5	no	no	✓
	8			
	2			

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Question 8
Correct
Mark 1.00 out of 1.00
Flag question

Three numbers form a Pythagorean triple if the sum of squares of two numbers is equal to the square of the third.
For example, 3, 5 and 4 form a Pythagorean triple, since $3^2 + 4^2 = 5^2$
You are given three integers, a, b, and c. They need not be given in increasing order. If they form a Pythagorean triple, then print "yes", otherwise, print "no". Please note that the output message is in small letters.

Sample Input
3
5
4

Sample Output
yes

Sample Test Cases
Test Case 1
Input
3
5
4
Output
yes
Test Case 2
Input
5
3
4

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c It's a consonant.

Answer: (penalty regime: 0 %)

```
1. def check_letter(letter):  
2.     vowels=['a','e','i','o','u']  
3.     if letter.lower() in vowels:  
4.         return "It's a vowel."  
5.     elif letter.lower()=='y':  
6.         return "Sometimes it's a vowel... Sometimes it's a consonant."  
7.     else:  
8.         return "It's a consonant."  
9. def main():  
10.    letter= input()  
11.    result=check_letter(letter)  
12.    print(result)  
13. if __name__ == '__main__':  
14.    main()  
15.
```

	Input	Expected	Got	
✓	i	It's a vowel.	It's a vowel.	✓
✓	y	Sometimes it's a vowel... Sometimes it's a consonant.	Sometimes it's a vowel... Sometimes it's a consonant.	✓

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Question 7
Correct
Mark 1.00 out of 1.00
Flag question

In this exercise you will create a program that reads a letter of the alphabet from the user. If the user enters a, e, i, o or u then your program should display a message indicating that the entered letter is a vowel. If the user enters y then your program should display a message indicating that sometimes y is a vowel, and sometimes y is a consonant. Otherwise your program should display a message indicating that the letter is a consonant.

Sample Input 1

i

Sample Output 1

It's a vowel.

Sample Input 2

y

Sample Output 2

Sometimes it's a vowel... Sometimes it's a consonant.

Sample Input3

c

Sample Output 3

It's a consonant.

For example:

Input	Result
y	Sometimes it's a vowel... Sometimes it's a consonant.
c	It's a consonant.

Answer: (penalty regime: 0.0%)

500 1035.00

Answer: (penalty regime: 0 %)

```

1 def calculate_bill(units):
2     if units <=199:
3         charge_per_unit=1.20
4     elif units <400:
5         charge_per_unit=1.50
6     elif units <600:
7         charge_per_unit=1.80
8     else:
9         charge_per_unit=2.00
10    total_amount=units*charge_per_unit
11    if total_amount>400:
12        surcharge=total_amount*0.15
13        total_amount+=surcharge
14    if total_amount<100:
15        total_amount=100.00
16    return total_amount
17 def main():
18     units=float(input())
19     total_bill=calculate_bill(units)
20     print(total_bill)
21 if __name__ == '__main__':
22     main()
23

```

	Input	Expected	Got	
✓	50	100.00	100.0	✓
✓	100.00	150.00	150.0	✓

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Marks for this submission: 1.00/1.00.

Question 6
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to calculate and print the Electricity bill where the unit consumed by the user is given from test case. It prints the total amount the customer has to pay. The charge are as follows:

Unit	Charge / Unit
Upto 199	@1.20
200 and above but less than 400	@1.50
400 and above but less than 600	@1.80
600 and above	@2.00

If bill exceeds Rs.400 then a surcharge of 15% will be charged and the minimum bill should be of Rs.100/-

Sample Test Cases

Test Case 1

Input

50

Output

100.00

Test Case 2

Input

300

Output

517.50

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```
10 second_last = second_last_digit(number)
11 print(second_last)
12 if __name__ == '__main__':
13     main()
```

	Input	Expected	Got	
✓	197	9	9	✓
✓	-197	9	9	✓
✓	5	-1	-1	✓
✓	123456	5	5	✓
✓	8	-1	-1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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Question 5
Correct
Mark 1.00 out of 1.00
Flag question

Write a program that returns the second last digit of the given number. Second last digit is being referred 10th digit in the tens place in the given number.

For example, if the given number is 197, the second last digit is 9.

Note1 - The second last digit should be returned as a positive number. i.e. if the given number is -197, the second last digit is 9.

Note2 - If the given number is a single digit number, then the second last digit does not exist. In such cases, the program should return -1. i.e. if the given number is 5, the second last digit should be returned as -1

For example:

Input	Result
197	9
5	-1

Answer: (penalty regime: 0 %)

```
1 def second_last_digit(number):
2     #Convert the number to a string to easily access individual digits
3     num_str=str(number)
4     if len(num_str) < 2:
5         return -1
6     second_last = int(num_str[-2])
7     return second_last
8 def main():
9     number=int(input())
10    second_last = second_last_digit(number)
11    print(second_last)
12 if __name__ == '__main__':
13    main()
```

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Sample Output:

2020 is the year of the Rat.

Answer: (penalty regime: 0 %)

```
1 def chinese_zodiac(year):
2     zodiac_animals = ['Dragon','Snake','Horse','Sheep','Monkey','Rooster','Dog','Pig','Rat','Ox','Tiger','Hare']
3     start_year=2000 # Year of the Dragon
4     animal_index=(year-start_year) % 12
5     animal_zodiac_animals[animal_index]
6     return animal
7 def main():
8     year=int(input())
9     animal=chinese_zodiac(year)
10    print(f'{year} is the year of the {animal}.')
11 if __name__ == '__main__':
12    main()
```

	Input	Expected	Got	
✓	2010	2010 is the year of the Tiger.	2010 is the year of the Tiger.	✓
✓	2020	2020 is the year of the Rat.	2020 is the year of the Rat.	✓

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Question 4
Correct
Mark 1.00 out of 1.00
Flag question

The Chinese zodiac assigns animals to years in a 12 year cycle. One 12 year cycle is shown in the table below. The pattern repeats from there, with 2012 being another year of the dragon, and 1999 being another year of the hare.

Year Animal
2000 Dragon
2001 Snake
2002 Horse
2003 Sheep
2004 Monkey
2005 Rooster
2006 Dog
2007 Pig
2008 Rat
2009 Ox
2010 Tiger
2011 Hare

Write a program that reads a year from the user and displays the animal associated with that year. Your program should work correctly for any year greater than or equal to zero, not just the ones listed in the table.

Sample Input 1

2010

Sample Output 1

2010 is the year of the Tiger.

Sample Input 2

2020

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Answer: (penalty regime: 0 %)

```
1 def check_eligibility(maths,physics,chemistry):  
2     total_marks= maths + physics + chemistry  
3     if maths>=65 and physics>=55 and chemistry>=50:  
4         return True  
5     elif total_marks>=180:  
6         return True  
7     else:  
8         return False  
9 def main():  
10     maths=int(input())  
11     physics=int(input())  
12     chemistry=int(input())  
13     if check_eligibility(maths,physics,chemistry):  
14         print("The candidate is eligible")  
15     else:  
16         print('The candidate is not eligible')  
17 if __name__ == "__main__":  
18     main()  
19
```

Input	Expected	Got	
✓ 70 60 80	The candidate is eligible	The candidate is eligible	✓
✓ 50 80	The candidate is eligible	The candidate is eligible	✓

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Question 3
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to find the eligibility of admission for a professional course based on the following criteria:

Marks in Maths ≥ 65

Marks in Physics ≥ 55

Marks in Chemistry ≥ 50

Or

Total in all three subjects ≥ 180

Sample Test Cases

Test Case 1

Input

70

60

80

Output

The candidate is eligible

Test Case 2

Input

50

80

80

Output

The candidate is eligible

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```
3         return True
4     if year%100==0:
5         return False
6     if year%4==0:
7         return True
8     return False
9
10 def main():
11     year=int(input())
12     if is_leap_year(year):
13         print(f"{year} is a leap year.")
14     else:
15         print(f"{year} is not a leap year.")
16
17 if __name__ == '__main__':
18     main()
```

Input	Expected	Got	
✓ 1900	1900 is not a leap year.	1900 is not a leap year.	✓
✓ 2000	2000 is a leap year.	2000 is a leap year.	✓
✓ 2100	2100 is not a leap year.	2100 is not a leap year.	✓
✓ 2020	2020 is a leap year.	2020 is a leap year.	✓

Passed all tests! ✓

REC-PS

✓	10 10 10	That's a equilateral triangle	That's a equilateral triangle	✓
---	----------------	-------------------------------	-------------------------------	---

Passed all tests! ✓

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Flag question

Most years have 365 days. However, the time required for the Earth to orbit the Sun is actually slightly more than that. As a result, an extra day, February 29, is included in some years to correct for this difference. Such years are referred to as leap years. The rules for determining whether or not a year is a leap year follow:

- Any year that is divisible by 400 is a leap year.
- Of the remaining years, any year that is divisible by 100 is not a leap year.
- Of the remaining years, any year that is divisible by 4 is a leap year.
- All other years are not leap years.

Write a program that reads a year from the user and displays a message indicating whether or not it is a leap year.

Sample Input 1

1900

Sample Output 1

1900 is not a leap year.

Sample Input 2

2000

Sample Output 2

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Answer: (penalty regime: 0 %)

```

1 def triangle_type(side1,side2,side3):
2     if side1 ==side2 ==side3:
3         return "equilateral"
4     elif side1 ==side2 or side1 ==side3 or side2 ==side3:
5         return 'isosceles'
6     else:
7         return "scalene"
8 def main():
9     side1=float(input())
10    side2=float(input())
11    side3=float(input())
12    triangle_type(side1,side2,side3)
13    print("That's a triangle, \"triangle\"")
14 if __name__ == '__main__':
15     main()
16
17

```

	Input	Expected	Got	
✓	60 60 60	That's a equilateral triangle	That's a equilateral triangle	✓
✓	40 40 80	That's a isosceles triangle	That's a isosceles triangle	✓

30°C Partly cloudy Search [Taskbar icons: File Explorer, Edge, Word, PowerPoint, Teams, OneDrive, Outlook, Chrome, Firefox, VLC, Spotify, etc.] ENG IN 20:20 19-06-2024 [System tray icons: Network, Volume, Battery, etc.]

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UNIT IV- Correlation and Spect

Unit III- Random Process

Week3_coding-Attempt review

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GE19211 / GE23233 / GE23231 - PSPP/PUP

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Quiz navigation

1

2

3

4

5

6

7

8

9

10

Show one page at a time

Finish review

Started on	Thursday, 11 April 2024, 8:22 PM
State	Finished
Completed on	Friday, 12 April 2024, 1:22 AM
Time taken	5 hours
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Flag question

A triangle can be classified based on the lengths of its sides as equilateral, isosceles or scalene. All three sides of an equilateral triangle have the same length. An isosceles triangle has two sides that are the same length, and a third side that is a different length. If all of the sides have different lengths then the triangle is scalene.

Write a program that reads the lengths of the three sides of a triangle from the user. Then display a message that states the triangle's type.

Sample Input 1

```
60
60
60
```

Sample Output 1

```
That's a equilateral triangle
```

Sample Input 2

30°C
Partly cloudy

Search

ENG
IN

20:20
19-06-2024