<u>Dashboard</u> / <u>My courses</u> / <u>PSPP/PUP</u> / <u>Algorithmic Approach: Selection control structures</u> / <u>Week3 coding</u>

Started on	Wednesday, 17 April 2024, 1:22 PM
State	Finished
Completed on	Sunday, 28 April 2024, 7:26 AM
Time taken	10 days 18 hours
Overdue	8 days 18 hours
Marks	4.00/10.00
Grade	40.00 out of 100.00

```
Question 1
Correct
Mark 1.00 out of 1.00
```

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

у

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	
у	Sometimes it's a vowel Sometimes it's a consonant.	
С	It's a consonant.	

```
vowels=["a","e","i","o","u"]
letter=str(input())
if letter in vowels:
    print("It's a vowel.")
elif letter=="y":
    print("Sometimes it's a vowel... Sometimes it's a consonant.")
else:
    print("It's a consonant.")
```

	Input	Expected	Got	
✓ i It's a vowel.		It's a vowel.	~	
~	у	Sometimes it's a vowel Sometimes it's a consonant.	Sometimes it's a vowel Sometimes it's a consonant.	~
~	С	It's a consonant.	It's a consonant.	~

	Input	Expected	Got	
~	е	It's a vowel.	It's a vowel.	~
~	r	It's a consonant.	It's a consonant.	~

Passed all tests! ✓

Correct

```
Question 2
Correct
Mark 1.00 out of 1.00
```

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*3 + 4*4 = 25 = 5*5

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

8

2

Output

no

```
a=int(input())
b=int(input())
c=int(input())
d **
if a**2+b**2==c**2 or b**2+c**2==a**2 or c**2+a**2==b**2:
    print("yes")
else:
    print("no")
```

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

Passed all tests! ✓

Correct

Question $\bf 3$

Incorrect

Mark 0.00 out of 1.00

Write a program that returns the second last digit of the given number. Second last digit is being referred 10the 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 %)

```
h=int(input())
def second_last_digit(number):
    num=abs(number)
if num:10:
    return-1
second_last= (num//10)%10
return second_last
print(second_last_digit(n))
```

```
Syntax Error(s)

File "__tester__.python3", line 5

return-1

^^^^^^^

SyntaxError: 'return' outside function
```

Incorrect

```
Question 4
Correct
Mark 1.00 out of 1.00
```

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

40

40

80

Sample Output 2

That's a isosceles triangle

Sample Input 3

50

60

70

Sample Output 3

That's a scalene triangle

For example:

Input	Result
60	That's a equilateral triangle
60	
60	
40	That's a isosceles triangle
40	
80	

	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	~
~	50 60 70	That's a scalene triangle	That's a scalene triangle	~
~	50 50 80	That's a isosceles triangle	That's a isosceles triangle	~
~	10 10 10	That's a equilateral triangle	That's a equilateral triangle	~

Passed all tests! <

Correct

Question 5	
Not answered	
Mark 0.00 out of 1.00	

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

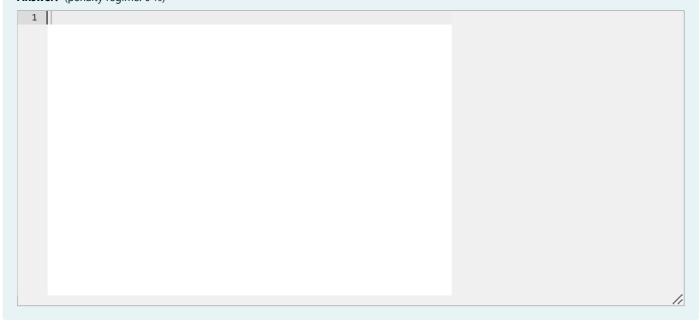
April

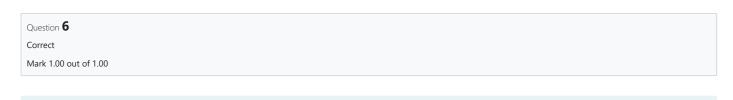
Sample Output 3

April has 30 days in it.

For example:

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





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

8

3

Output

OUT

For example:

Input	Result
8	OUT
3	

	Input	Expected	Got	
~	8	OUT	OUT	~
~	8	IN	IN	~
~	20 9	OUT	OUT	~
~	50 31	IN	IN	~

Passed all tests! ✓

Correct

Question 7	
Not answered	
Mark 0.00 out of 1.00	
The Chinese zodiac assigns animals to years in a 12 year cycle. One 12 year cycle is shown in there, with 2012 being another year of the dragon, and 1999 being another year of the hard	
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 the any year greater than or equal to zero, not just the ones listed in the table.	at year. Your program should work correctly for
Sample Input 1	
2010	
Sample Output 1	
2010 is the year of the Tiger.	
Sample Input 2	
2020	
Sample Output 2	
2020 is the year of the Rat.	
Answer: (penalty regime: 0 %)	
1	
	//

Question **8**Not answered
Mark 0.00 out of 1.00

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

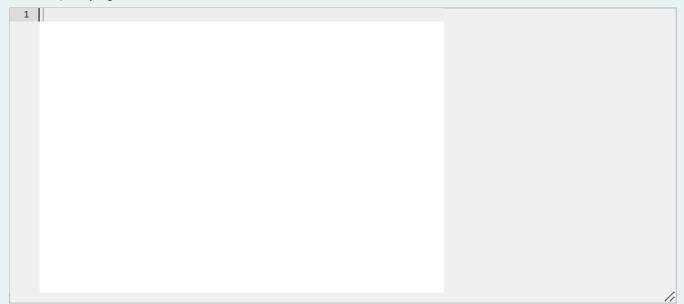
300

Output

517.50

For example:

Input	Result
100.00	120.00
500	1035.00



Question 9
Incorrect
Mark 0.00 out of 1.00

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.

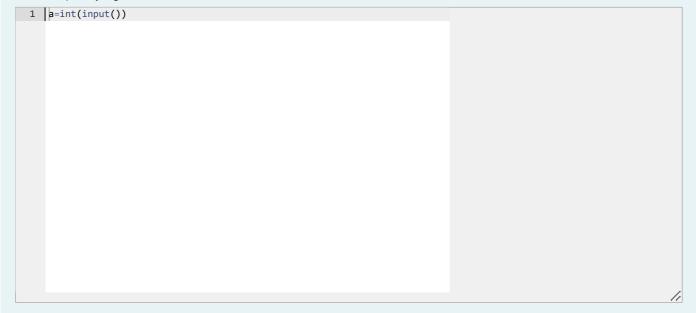
Sample Input 2

2000

Sample Output 2

2000 is a leap year.

Answer: (penalty regime: 0 %)



	Input	Expected		
×	1900	1900 is not a leap year.	×	

Some hidden test cases failed, too.

Your code must pass all tests to earn any marks. Try again.

Incorrect

```
Question 10
Incorrect
Mark 0.00 out of 1.00
```

```
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
Test Case 3
```

Input

50

60

40

Output

The candidate is not eligible

For example:

Result			
The	candidate	is	eligible
			Result The candidate is

```
a=int(input())
   b=int(input())
2
3
   c=int(input())
4 ,
  if(a>=65):
5 ,
       if(b>=55):
6 ,
           if(c>=50):
7
               print("The candidate is eligible")
8 ▼ else:
9
       print("The candidate is eligible")
```

	Input	Expected	Got	
~	70 60 80	The candidate is eligible	The candidate is eligible	~
~	50 80 80	The candidate is eligible	The candidate is eligible	~
×	50 60 40	The candidate is not eligible	The candidate is eligible	×

Some hidden test cases failed, too.

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/1.00.

■ Week3_mcq

Iteration control structures ►