Question1. Write a function that stutters a word as if someone is struggling to read it. The

first two letters are repeated twice with an ellipsis ... and space after each, and then the

word is pronounced with a question mark ?.

Examples

stutter(&quot;incredible&quot;) ➞ &quot;in... in... incredible?&quot;

stutter(&quot;enthusiastic&quot;) ➞ &quot;en... en... enthusiastic?&quot;

stutter(&quot;outstanding&quot;) ➞ &quot;ou... ou... outstanding?&quot;

Hint :- Assume all input is in lower case and at least two characters long.

A: def stutter(word):

return (2\*(word[:2]+'... '))+word+'?'

word = input('Enter word : ')

print(stutter(word))

Question 2.Create a function that takes an angle in radians and returns the corresponding

angle in degrees rounded to one decimal place.

A: def radian(r):

rad=round((180/3.14)\*r,2)

return rad

radian(1)

radian(20)

radian(50)

Examples

radians\_to\_degrees(1) ➞ 57.3

radians\_to\_degrees(20) ➞ 1145.9

radians\_to\_degrees(50) ➞ 2864.8

Question 3. In this challenge, establish if a given integer num is a Curzon number. If 1 plus

2 elevated to num is exactly divisible by 1 plus 2 multiplied by num, then num is a Curzon

number.

Given a non-negative integer num, implement a function that returns True if num is a Curzon

number, or False otherwise.

Examples

is\_curzon(5) ➞ True

# 2 \*\* 5 + 1 = 33

# 2 \* 5 + 1 = 11

# 33 is a multiple of 11

is\_curzon(10) ➞ False

# 2 \*\* 10 + 1 = 1025

# 2 \* 10 + 1 = 21

# 1025 is not a multiple of 21

is\_curzon(14) ➞ True

# 2 \*\* 14 + 1 = 16385

# 2 \* 14 + 1 = 29

# 16385 is a multiple of 29

A: def is\_curzon(a):

x=2\*\*5+1

y=2\*5+1

if x%y==0:

return True

else:

return False

is\_curzon(5)

Question 4.Given the side length x find the area of a hexagon.

Examples

area\_of\_hexagon(1) ➞ 2.6

area\_of\_hexagon(2) ➞ 10.4

area\_of\_hexagon(3) ➞ 23.4

A:

class hex:

def \_\_init\_\_(self , length ):

self.length1 = length

def area1(self):

return round((self.length1\*self.length1\*1.732\*3)/2,2)

area= hex(3)

print(area.area1())

Question 5. Create a function that returns a base-2 (binary) representation of a base-10

(decimal) string number. To convert is simple: ((2) means base-2 and (10) means base-10)

010101001(2) = 1 + 8 + 32 + 128.

Going from right to left, the value of the most right bit is 1, now from that every bit to the left

will be x2 the value, value of an 8 bit binary numbers are (256, 128, 64, 32, 16, 8, 4, 2, 1).

Examples

binary(1) ➞ &quot;1&quot;

# 1\*1 = 1

binary(5) ➞ &quot;101&quot;

# 1\*1 + 1\*4 = 5

binary(10) ➞ &quot;1010&quot;

# 1\*2 + 1\*8 = 10

A: def decimalToBinary(n):

return bin(n).replace("0b", "")

for i in range(0,50):

print(decimalToBinary(i))