**Q1**

def amp\_numb(n):

result = []

for i in range(1, n + 1):

if i % 4 == 0:

result.append(10 \* i)

else:

result.append(i)

return result

**Q2**

def find\_unique\_number(numbers):

# Create a dictionary to count occurrences of each number

count\_dict = {}

for num in numbers:

if num in count\_dict:

count\_dict[num] += 1

else:

count\_dict[num] = 1

# Find the number with only one occurrence

for num, count in count\_dict.items():

if count == 1:

return num

**Q3**

import math

class Circle:

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

self.radius = radius

def getArea(self):

return math.pi \* self.radius \*\* 2

def getPerimeter(self):

return 2 \* math.pi \* self.radius

**Q4**

def sort\_strings\_by\_length(strings):

return sorted(strings, key=len)

**Q5**

def is\_pythagorean\_triplet(a, b, c):

# Find the squares of the three numbers

a\_square = a \*\* 2

b\_square = b \*\* 2

c\_square = c \*\* 2

sum\_of\_smallest\_squares = a\_square + b\_square if a\_square + b\_square <= c\_square else a\_square + c\_square if a\_square + c\_square <= b\_square else b\_square + c\_square

return sum\_of\_smallest\_squares == c\_square