Q1

number = float(input("Enter a number: "))

if number > 0:

print("The number is positive.")

elif number < 0:

print("The number is negative.")

else:

print("The number is zero.")

Q2

number = int(input("Enter a number: "))

if number % 2 == 0:

print("The number is even.")

else:

print("The number is odd.")

Q3

year = int(input("Enter a year: "))

if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):

print(f"{year} is a leap year.")

else:

print(f"{year} is not a leap year.")

Q4

def is\_prime(number):

if number <= 1:

return False

for i in range(2, int(number \*\* 0.5) + 1):

if number % i == 0:

return False

return True

Q5

lower = int(input("Enter lower range: "))

upper = int(input("Enter upper range: "))

for num in range(lower,upper + 1):

# prime numbers are greater than 1

if num > 1:

for i in range(2,num):

if (num % i) == 0:

break

else:

print(num)