```python
print("Q1. Write a Python program to print the first n Fibonacci numbers using a loop.")
n = int(input("Enter the number = "))
if n <= 0:
    print("Please enter a positive number.")
else:
    print("Fibonacci sequence =")
    a, b = 0, 1
    print(a, end=" ")
    for i in range(1, n):
        print(b, end=" ")
        a, b = b, a + b
    pass
print()
print("Q2. Create a Python program to list all prime numbers up to a given number n using loops3.")
print()
num = int(input("Enter a number = "))
if num <= 1:
    print("Number is not a prime number.")
else:
    is_prime = True
    i = 2
    while (i < num):
        if (num % i == 0):
            is_prime = False
            break
        i += 1
    if is_prime:
        print("Number is a prime number.")
    else:
        print("Number is not a prime number.")


print()
print("Q4.Write a Python program to print a pyramid pattern using loops. The height of the pyramid should be determined by the user input.")
print()
n = int(input("Enter the height = "))

for i in range(1, n + 1):
    for j in range(n - i):
        print(" ", end="")
    for k in range(2 * i - 1):
        print("*", end="")
    print()
```

```python
print("Q5. Write a Python program to check if a given string is a palindrome using loops.")
print()
n = input("Enter a string = ")
left = 0
right = len(n)-1
is_palindrome = True
while left<right:
    if n[left] != n[right]:
        is_palindrome = False
        break
    left += 1
    right -= 1
if is_palindrome:
    print("{} is a palindrome.".format(n))
else:
    print("{} is not a palindrome.".format(n))



print()
print("Q6.Create a Python program that takes an integer input and calculates the sum of its digits using a loop.")
n= int(input("Enter an integer = "))
sum_of_digits = 0
k = number
while k > 0:
    digit = k % 10
    sum_of_digits += digit
    k = k // 10
print("The sum of the digits of {} is = {sum_of_digits}".format(number,sum_of_digits))
```

```
Q1. Write a Python program to print the first n Fibonacci numbers using a loop.
Enter the number = 4
Fibonacci sequence =
0 1 1 2
Q2. Create a Python program to list all prime numbers up to a given number n using loops3.

Enter a number = 4
Number is not a prime number.

Q4.Write a Python program to print a pyramid pattern using loops. The height of the pyramid should be determined by the user input.

Enter the height = 4
   *
  ***
 *****
*******

Q5. Write a Python program to check if a given string is a palindrome using loops.

Enter a string = php
php is a palindrome.

Q6.Create a Python program that takes an integer input and calculates the sum of its digits using a loop.
Enter an integer = 3456
The sum of the digits of 3456 is = 18
```