

9. Write a program to check a number is a prime number or not using recursion.

PROGRAM :

```
def is_prime(num, i=2):  
    if num <= 2:  
        return True if num == 2 else False  
    if num % i == 0:  
        return False  
    if i * i > num:  
        return True  
    return is_prime(num, i + 1)  
  
num = 29  
if is_prime(num):  
    print(f"{num} is a prime number")  
else:  
    print(f"{num} is not a prime number")
```

INPUT : **enter the number : 29**

OUTPUT : **29 is a prime number**

Time Complexity:  $O(\sqrt{n})$