```
import math


def add(x,y):
  return x+y


def sub(x,y):
  return x-y


def mul(x,y):
  return x*y


def mul(x,y):
  return x*y


def div(x,y):
  return x/y


def inverse(x):
  return 1/x


def square(x):
  return x**2


def square_root(x):
  m=math.sqrt(x)
  return m


def per(tot,gained):
    per=(gained/tot)*100
    return per
```

```
def calculator():
    print("Select operation:")
    print("1. Add")
    print("2. Subtract")
    print("3. Multiply")
    print("4. Divide")
    print("5. Inverse")
    print("6. Square of a number")
    print("7. Square root of a number")
    print("8. Percentage")

    while True:

        choice = input("Enter choice(1/2/3/4/5/6/7/8): ")


        if choice in ['1', '2', '3', '4','5','6','7','8']:
            if choice == '1':
                try:
                  num1 = float(input("Enter first number: "))
                  num2 = float(input("Enter second number: "))
                except ValueError:
                  print("Invalid input. Please enter numeric values.")
                  continue
                r=add(num1,num2)
                print(f"The Addition of {num1} and {num2} is {r}")
            elif choice == '2':
                try:
                  num1 = float(input("Enter first number: "))
                  num2 = float(input("Enter second number: "))
                except ValueError:
                  print("Invalid input. Please enter numeric values.")
                  continue
                r=sub(num1,num2)
                print(f"The Subtraction of {num1} and {num2} is {r}")

            elif choice == '3':
                try:
                  num1 = float(input("Enter first number: "))
                  num2 = float(input("Enter second number: "))
                except ValueError:
                  print("Invalid input. Please enter numeric values.")
                  continue
                r=mul(num1,num2)
                print(f"The Multiplication of {num1} and {num2} is {r}")

            elif choice == '4':
              try:
                num1 = float(input("Enter first number: "))
                num2 = float(input("Enter second number: "))
              except ValueError:
                print("Invalid input. Please enter numeric values.")
                continue
              r=div(num1,num2)
              print(f"The Division of {num1} and {num2} is {r}")
            elif choice=='5':
              try:
                num1 = float(input("Enter first number: "))
              except ValueError:
                print("Invalid input. Please enter numeric values.")
                continue
              r=inverse(num1)
              print(f"The inverse of the number {num1} is {r}")
            elif choice == '6':
              try:
                num1 = float(input("Enter first number: "))
              except ValueError:
                print("Invalid input. Please enter numeric values.")
                continue
              r=square(num1)
              print(f"The square of the number {num1} is {r}")
            elif choice=='7':
              try:
                num1 = float(input("Enter first number: "))
              except ValueError:
                print("Invalid input. Please enter numeric values.")
                continue
              r=square_root(num1)
              print(f"The Suqare Root of the number {num1} is {r}")
            elif choice=='8':
              try:
                num1 = float(input("Enter total amount: "))
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                gained = float(input("Enter amount: "))
              except ValueError:
                print("Invalid input. Please enter numeric values.")
                continue
              r=per(num1,gained)
              print(f"The percentage of the number {gained} is {r}")


            next_calculation = input("Do you want to perform another calculation? (yes/no): ")
            if next_calculation.lower() != 'yes':
                break
        else:
            print("Invalid Input")


if __3name__ == "__main__":
    calculator()
```

```
Select operation:
1. Add
2. Subtract
3. Multiply
```