

```
def sum_of_even_numbers(numbers):  
    """  
    Calculate the sum of all even numbers in a list.  
  
    Parameters:  
    numbers (list of int): A list of integers.  
  
    Returns:  
    int: The sum of all even numbers in the list.  
    """  
    sum_even = 0  
    for num in numbers:  
        if num % 2 == 0:  
            sum_even += num  
    return sum_even
```