```python
Def count_sets(N):
    Count = 0
    For a in range(1, N + 1):
        For b in range(1, N + 1):
            For c in range(1, N + 1):
                If a**2 + b**2 + c**2 + a*b + b*c + c*a == N:
                    Count += 1
    Return count

N = int(input())
Result = count_sets(N)
Print(result)
```