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| **Count Set bits in C++** | |
| #include <iostream>  using namespace std;  int countSetBits(int num) {  int count = 0;  while (num != 0) {  count += num & 1;  num >>= 1;  }  return count;  }  int main() {  int num = 11; // Binary: 1011  int count = countSetBits(num);  cout << "Number of set bits: " << count << endl;  return 0;  } | Dry Run Table:  | **Iteration** | **num (binary)** | **num & 1** | **count** | **num >> 1 (after shift)** | | --- | --- | --- | --- | --- | | 1 | 1011 (11) | 1 | 1 | 0101 (5) | | 2 | 0101 (5) | 1 | 2 | 0010 (2) | | 3 | 0010 (2) | 0 | 2 | 0001 (1) | | 4 | 0001 (1) | 1 | 3 | 0000 (0) |  ✅ Final Output: Number of set bits: 3 |
| 3 | |