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| **Div by 2k in C++** | |
| #include <iostream>  using namespace std;  int main() {  int x = 24;  int k = 3;  int res = x >> k; // Right shift operation to divide x by 2^k  cout << res << endl;  return 0;  } | **Given:**   * x = 24 * k = 3 * Operation: x >> k means shift the bits of x to the right by k positions (i.e., divide x by 2k=82^k = 82k=8).   **🔢 Binary Representation**   | **Variable** | **Binary** | **Decimal** | | --- | --- | --- | | x | 0001 1000 | 24 |   Now right shift by 3 positions:   * Original: 0001 1000 * After >> 1: 0000 1100 (12) * After >> 2: 0000 0110 (6) * After >> 3: 0000 0011 (3)   **✅ Final Result:**  cout << res << endl; // prints: 3  So the output is:  3 |
| Output:- 3 | |