Div by 2k in C++

| ```cpp
#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:**<br><br>• x = 24<br>• k = 3<br>• Operation: x >> k means shift the bits of x to the right by k positions (i.e., divide x by $2k=8$$2^k = 8$$2k=8$).<br><br>**📛 Binary Representation**<br><br>| Variable | Binary | Decimal |<br>|---|---|---|<br>| x | 0001 1000 | 24 |<br><br>Now right shift by 3 positions:<br><br>• Original: 0001 1000<br>• After >> 1: 0000 1100 (12)<br>• After >> 2: 0000 0110 (6)<br>• After >> 3: 0000 0011 (3)<br><br>**✔ Final Result:**<br><br>cout << res << endl; // prints: 3<br><br>So the output is:<br><br>3 |
| Output:-
3 | |