#include <iostream>

int main()

{

const unsigned int redBits = 0xFF000000;

const unsigned int greenBits = 0x00FF0000;

const unsigned int blueBits = 0x0000FF00;

const unsigned int alphaBits = 0x000000FF;

std::cout << "Enter a 32-bit RGBA color value in hexadecimal (e.g. FF7F3300): ";

unsigned int pixel;

std::cin >> std::hex >> pixel; // std::hex allows us to read in a hex value

// use bitwise AND to isolate red pixels, then right shift the value into the range 0-255

unsigned char red = (pixel & redBits) >> 24;

unsigned char green = (pixel & greenBits) >> 16;

unsigned char blue = (pixel & blueBits) >> 8;

unsigned char alpha = pixel & alphaBits;

std::cout << "Your color contains:\n";

std::cout << static\_cast<int>(red) << " of 255 red\n";

std::cout << static\_cast<int>(green) << " of 255 green\n";

std::cout << static\_cast<int>(blue) << " of 255 blue\n";

std::cout << static\_cast<int>(alpha) << " of 255 alpha\n";

return 0;

}