CO222: Programming Methodology
Lab: 02

Task 01

A number is **special,** if it is exactly divisible by 15. A number is **big,** if it is greater than 999. A number is **weird,** if it is exactly divisible by 5 and 6 but not 18. A number is **scary** if it is big or weird.

Write a c program to test a given number.

For example:

```
./number
Enter a number: 450
450 is special but not scary.

./number
Enter a number: 750
750 is special, weird and scary but not big.
```

Task 02

When doing any work with visual media it is often very useful to have the complement of a color on hand to create contrast and bring the focus of a picture to a particular place. To create the complement of a color on a computer, each of the red, green, and blue values of a color are inverted. Each of the red, green, and blue values of a color can range from 0 to 255, inclusive. If a particular component of one color is 50, then that component of its complement is 255-50=205.

Although this generally works well, it doesn't generate good complements for grey colors that have all three components right around 128. To fix this you will return an alternate complement for grey colors. If each component of a color and its corresponding component of the color's complement differ by 32 or less, then make the complement of each component by either adding 128 to a component's value, or by subtracting 128 from a component's value, whichever one results in a legal value. For example, the color {115,115,143} would have the complement {140, 140,112}, but since each component of the complement would have been within 32 of the corresponding component of rgb, we return the alternate complement {243, 243, 15} instead.

Write a programme that takes a color representing the red, green, and blue values of a color, in that order, and prints the red, green, and blue values of the complement of that color, in that same order.

Following is a typical input/output scenario and the format:

```
./color
Enter the color: 255 0 0
The complement: 0 255 255
```