LAB 6

TASK 1:
Done inclass

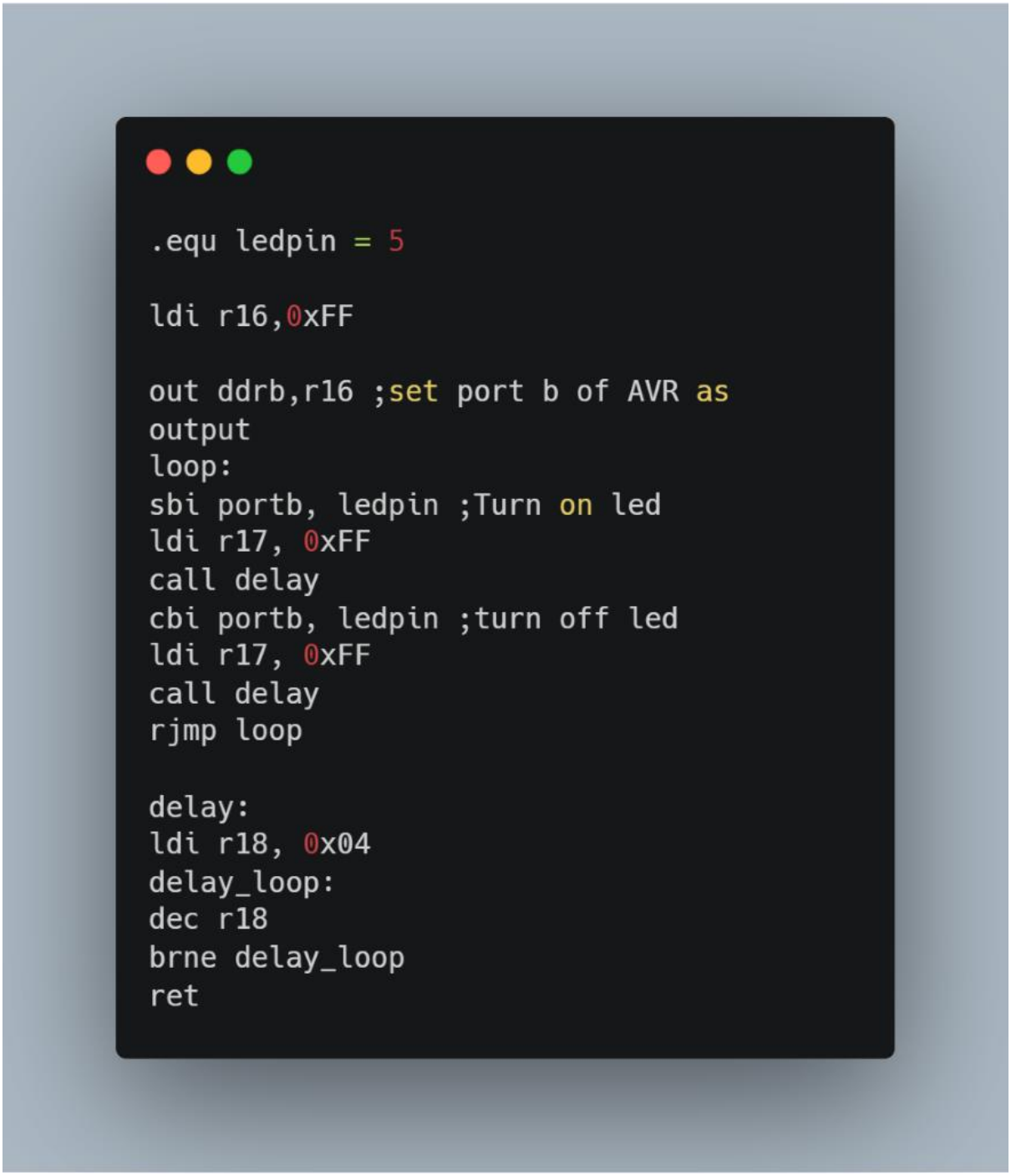
TASK 2:

1. Show your calculations on how the program will delay for 1 second.

The AVR microcontroller is running at a clock frequency of 1 MHz (1 million cycles per second). The delay loop uses two 8-bit registers, R16 and R17, to create a delay of 1 second.

TASK 3
The built-in LED on the Arduino UNO board is connected to pin 13 on the ATmega328p MCU

TASK 4



```
.equ ledpin = 5

ldi r16,0xFF

out ddrb,r16 ;set port b of AVR as
output
loop:
sbi portb, ledpin ;Turn on led
ldi r17, 0xFF
call delay
cbi portb, ledpin ;turn off led
ldi r17, 0xFF
call delay
rjmp loop

delay:
ldi r18, 0x04
delay_loop:
dec r18
brne delay_loop
ret
```

TASK 5:
Done inclass