## CMPT 433: Embedded Systems

## Timer Calculation Worksheet

Equation for calculating period of time and timer clock frequency:

$$Period = \frac{0xFFFF\ FFFF - TLDR + 1}{Timer\ Clock\ Frequency} * 2^{N}$$
 (1)

1. Given an 8-bit timer with a 32Hz clock and no divider, find the maximum timer duration.

2. Given an 8-bit timer with a 32Hz clock, calculate the necessary divider and TLDR for a 200s period.

3.	Given a 32-bit timer with a 25MHz clock and no divider, find the maximum timer period.
4.	Given a 32-bit timer with a 25MHz clock, calculate the necessary divider and TLDR for a 2s period.
5.	Given the same parameters and TLDR from the previous question but with ${\cal N}=2$ , how long will the period be?