

Experiment 5-B

Solving Mathematical Formulas Using Jump Instructions

OBJECTIVE

Using knowledge from previous weeks, write assembly programs which calculate the given formulas:

$$a) \sum_{i=1}^n i$$

$$b) \prod_{i=1}^n i$$

$$c) \prod_{i=0}^n (2*i + 1)$$

n = <Last digit of Student ID> mod 5
If n = 0, then n = 5

An example code for 2nd formula:

```
clr r0
ld r1, #1h
ld r2, #1h

loop3:
    ld r0, r2
    mult rr0
    inc r2
    cp r2, #4h
    jr le, loop3
```