

P1: Compute the maximum of 3 numbers

```
{
    let a: int;
    input(a);

    let b: int;
    input(b);

    let c: int;
    input(c);

    let max = a;

    check(b > a) {
        max = b;
    }
    check(c > max) {
        max = c;
    }

    output("The maximum is ");
    output(max);
}
```

P1_err:

```
{
    // first lexical error
    let a: 1int;
    input(a);

    let b: int;
    input(b);

    let c: int;
    input(c);

    let max = a;

    // second lexical error
    check(b ~ a) {
        max = b;
    }
    check(c > max) {
        max = c;
    }

    output("The maximum is ");
    output(max);
}
```

P2: Check if a number is prime

```
{
    let number: int;
    input(number);

    let primeAnswer = "The number is prime!";

    let nonPrimeAnswer = "The number is not prime!";

    check(number < 2) {
        output(nonPrimeAnswer);
        exit;
    }

    check(number == 2) {
        output(primeAnswer);
        exit;
    }

    check(number % 2 == 0) {
        output(nonPrimeAnswer);
        exit;
    }

    loop(let d = 3; d * d <= number; d = d + 2) {
        if (number % d == 0) {
            output(nonPrimeAnswer);
            exit;
        }
    }

    output(primeAnswer);
}
```

P3: Compute the sum of n elements

```
{
    let sum = 0;
    let currentNumber: int;

    let n: int;
    input(n);

    loop(let i = 0; i < n; ++i) {
        input(currentNumber);
        sum = sum + currentNumber;
    }

    output(sum);
}
```