



## Exercise Set 2

### 1. LARGER FIBONACCI-NUMBERS

- (a) If the gnu multiple precision arithmetic library GMP is not yet installed on your working platform, download it from <http://gmplib.org> and install it.
- (b) GMP provides a C++ interface class `mpz_class` for its multiple precision integers. Implement a function

```
mpz_class fib(mpz_class n)
```

which computes  $F(n)$  for integer  $n$ .

- (c) Analyze the running time of your implementation theoretically.
- (d) See how to measure running time of your implementation on your working platform.