

1 Coding

1. Implement byte-wise XOR of an array of size $n > 10000$.

Template:

```
char my_xor(const char* p, int n)
{ ... }
```

2. Implement evaluation of a polynome $a_0 + a_1x + \dots + a_nx^n$.

Condition: $|a_0| > |a_1| > \dots > |a_n|$, $0 < x < 1$.

Template:

```
double polyeval(const double* a, int n, double x)
{ ... }
```

3. Implement an addition operator for class of rational numbers (you can design the class by yourself).

4. Implement matrix multiplication $Ab = x$ (you can choose any matrix layout, but it must be passed as `const double*`)

Template:

```
void mul(const double* A, const double* b,
         double* x, int n)
{ ... }
```