Recall polynomial functions, or simply polynomials:

$$P(x)=5x^6-12.3x^4+7x-10$$

Let's design and implement a Polynomial class that will be representing polynomials in this way:

$$P(x)=5x^6-12.3x^4+7x-10=-10+7x+0\cdot x^2+0\,0\cdot x^3-12.3x^4+0\cdot x^5+5x^6$$

numerical coefficient of x^i (coeff)	-10	7	0	0	-12.3	0	5
index i, i.e. power of x and position in the array of coefficients	0th	1st	2nd	3rd	4th	5th	6th

```
class Polynomial
{
    int size_;      // size of the array of coefficients
    double* coeff; // coefficients
public:
…

};
```

Note that the *degree* of the polymonial is size of the array of coefficients – 1.

Grab the file **polynomial.h** from our website or Blackboard) and follow the directions to implement the `class Polynomial`.