

# **Effective Programming Practices for Economists**

## **Numerical Optimization**

### **Set up of the example**

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# Function

In these lectures we will use the following function as a target for our optimization:

$$f(\mathbf{x}) = \sum_{j=1}^J w_j \cdot x^{j-1}$$

with  $J = 12$ .

# Weights used

```
WEIGHTS = [  
    9.003014962148157,  
    -3.383000146393776,  
    -0.6037887934635748,  
    1.6984454347036886,  
    -0.9447426232680957,  
    0.2669069434366247,  
    -0.04446368897497234,  
    0.00460781796708519,  
    -0.0003000790127508276,  
    1.1934114174145725e-05,  
    -2.6471293419570505e-07,  
    2.5090819960943964e-09,  
]
```

