4330 Assignment 7 [1]

Write your code for the following problems in a single file named:

`hw7-`*lastname*`.py`

Please: name your file in exactly this way; lowercase 'hw', a dash (not an underscore), and **NO SPACES** in the filename! Download the file `hw7.py` from Blackboard, and use it as a starting point for this assignment. Read the code for the supplied methods `set_from_list, degree, get_string` to see how this class represents a polynomial. The idea is that a polynomial $f(t) = c_0 + c_1 t + c_2 t^2 + \cdots + c_k x^k$ is represented by a list `self.coefs` with `self.coefs[j]` being the value c_j.

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(1) (10 points) Write the method `evaluate` which evaluates a Polynomial object at a given number and returns the result. This method should *not* print anything. It must `return` the result.

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(2) (10 points) Write the member function `derivative` which returns a new `Polynomial` object which is the derivative of the current object. As above, it should *not* print anything - it must `return` the result.