Northern Michigan University (Marquette Co, MI)
CS 550-01-24F: Principles Of Programming Languages

Program 1
Due: Monday 18 November 2024 11:00 A.M. EDT

Create a directory called “PG1” at the top level of your CS550-01-24F folder on PHILOS. You should solve this problem in either a text file (.txt) or an MS Word file (.docx). Place this file inside your PG1 folder along with an empty file or folder named DONE .

1. Construct an APL “one-liner” that gets a number from standard input and returns the factors of that number in a vector. For example,

```
⍞:
      12
1 2 3 4 6 12
```

2. Write a dyadic function in APL that takes strings of digits of arbitrary length and returns the product of those two numbers as a string, no matter how large those numbers may be. Call this function MULT

```
'999999' MULT '999999'
999998000001
```

This can be done as a “one-liner,” but I'm not asking you to that. You might also want to make a helper function ADD. There are ways to convert a string to an integer (if it's within bounds) and ways to convert a string to an integer vector:

```
      ⍎'12345'
12345
      ⍎¨'12345'
1 2 3 4 5
```