

CSE 20
Fall 2020
Quiz 4

Solutions

1. (25 Points) Write a Python function called `multList(A, B)`. This function that takes as input two lists `A` and `B`, each of the same length, and returns a new list containing the products of corresponding elements in `A` and `B`. For instance, a call to `multList([3, 2, 4], [2, 5, 7])` will return the list `[6, 10, 28]`. Write your function so that if `A` and `B` are not of the same length, then `None` is returned.

```
def multList(A, B):  
  
    if len(A)==len(B):  
        C = []  
        for i in range(len(A)):  
            C.append(A[i]*B[i])  
        # end for  
        return C      # indentation is important here  
    # end if  
  
#end multList()
```

2. (25 Points) Write a Python function called `splitList(L)` that takes as input a list `L` of any length, and returns a tuple containing two lists `A` and `B`, where `A` contains the even indexed elements of `L`, and `B` contains the odd indexed elements of `L`. For instance, a call to `splitList([5, 7, 3, 9, 2])` will return the tuple `([5, 3, 2], [7, 9])`.

```
def splitList(L):  
  
    A = []  
    B = []  
    for i in range(len(L)):  
        if i%2==0:  
            A.append(L[i])  
        else:  
            B.append(L[i])  
        # end if-else  
    # end for  
    return (A, B)  
  
# end splitList()
```