CS320- Winter 2021
Python Coding Challenge 2

You have two programs to complete for this challenge:

1. Write a function **counts** that accepts a **list** of integers and a **set** of integers as parameters and returns a dictionary from each value in the set to the number of occurrences of that value in the list. For example, if your function is passed the following list and set as parameters:

   list: [**4**, **-2**, 3, 9, **4**, 17, 5, **29**, 14, 87, **4**, **-2**, 100]
   set: [-2, 4, 29]

   Then your function should return the dictionary {-2:2, 4:3, 29:1}, because there are two occurrences of -2, three occurrences of 4, and one occurrence of 29. The order of the key/value pairs does not matter.

Sample Run

```
x= [4, -2, 3, 9, 4, 17, 5, 29, 14, 87, 4, -2, 100]
y= [-2, 4, 29]

print(counts(x,y)) → {4: 3, -2: 2, 29: 1}
```

2. Write a function named **switch_pairs** that accepts a string as a parameter and returns that string with each pair of neighboring letters reversed. If the string has an odd number of letters, the last letter should not be modified. For example,

Sample Run

```
print(switch_pairs("example")) → "xemalpe"
print(switch_pairs("hello there"))→ "ehll ohtree"
print(switch_pairs("homework"))→ “ohemowkr"
```