## Student Information

Name:

NetID:

### I.

Enter the substring that will be returned after each string indexing and slicing operation. (1 point each)

<table>
<thead>
<tr>
<th>s = 'Spring 2013'</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>s[5]</td>
<td></td>
</tr>
<tr>
<td>s[-4]</td>
<td></td>
</tr>
<tr>
<td>s[7:9]</td>
<td></td>
</tr>
<tr>
<td>s[-2:]</td>
<td></td>
</tr>
<tr>
<td>s[:3]</td>
<td></td>
</tr>
<tr>
<td>s[9] * 3</td>
<td></td>
</tr>
</tbody>
</table>

### II.

Enter the value that the following string functions will return. (1 point each)

<table>
<thead>
<tr>
<th>s = 'New York University'</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>s.find('i')</td>
<td></td>
</tr>
<tr>
<td>' ' in s</td>
<td></td>
</tr>
<tr>
<td>s.count('N')</td>
<td></td>
</tr>
<tr>
<td>s.endswith('k')</td>
<td></td>
</tr>
<tr>
<td>len(s)</td>
<td></td>
</tr>
<tr>
<td>s.rindex('e')</td>
<td></td>
</tr>
</tbody>
</table>
III.
Encapsulate the following program in a main function. Leave the exchange rate assignment statement outside of the function. Call the function where appropriate in the code. (5 points)

```python
exchange_rate = 99.034
price = float(input('Enter the price of the item: '))
dollars = str(price / exchange_rate)
print('This item costs USD $' + dollars)
```

IV.
Write another function that would allow a user of the above program (section III) to change the exchange rate value. Keep in mind that this variable is positioned outside the function. Include a short doc string for the function as well. (4 points)
V. What will be the output of the following for-loop? (4 points)

```python
for i in range(10, 30, 5):
    print(i, end = ' ')
```

VI. What will be the output of the following while-loop? (4 points)

```python
i = 16
while i > 0:
    print(i, end = ' ')
    i = i - 4
```
VII.
What will be the output of the following? (4 points)

```python
s = 'text processing'
for c in s:
    if c == 'e':
        c = '3'
    elif c == 's':
        c = '$'
    print(c, end = '')
```

VIII.
Write a program that uses a nested loop to print out the following pattern of characters to the screen. (5 points)

```
> > > > > > >
> > > > > > >
> > > > > > >
```