1. Consider this code:

```python
data = [['a', 'b'], [3, 4], ['cat', 'mouse', 'elephant']]
sublist = data[2]
```

For each pair of expressions, circle the one that evaluates to 3:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
</tr>
<tr>
<td>len(data[2])</td>
<td>data[1][0]</td>
<td>len(sublist[0])</td>
<td>len(data[2][0])</td>
</tr>
</tbody>
</table>

2. Which of the following code fragments does not create a nested list (a list that contains at least one other list)?

(a) `nums = []`
(b) `nums = [0, 1, 2, 3]`

```python
for i in range(4): nums[-1] = [3, 4, 5]
```

(c) `nums = []`
(d) `nums = [0, 1, 2, 3]`

```python
for i in range(4): letters = ['a', 'b', 'c', nums]
```

```
nums.append([i])
```

3. Consider this code:

```python
teams = [['Canadiens', 'Leafs', 'Senators'], ['Jets'], ['Oilers', 'Canucks']]
```

Which of the following expressions will not evaluate to 5?

(a) `len(teams[0]) + len(teams[-1])`
(b) `len(teams[0] + teams[2])`

```python
(c) len(teams) - 1
(d) len(teams[0][1])
```
4. Complete the examples in the docstring and then the function body.

from typing import List

def digital_sum(nums_list: List[str]) -> int:
    """Return the sum of all the digits in all strings in nums_list.
    Precondition: s.isdigit() holds for each string s in nums_list.
    >>> digital_sum(['64', '128', '256'])
    34
    >>> digital_sum(['12', '3'])
    """

5. Complete the examples in the docstring and then the function body.

def can_pay_with_two_coins(denoms: List[int], amount: int) -> bool:
    """Return True if and only if it is possible to form amount, which is a number of cents, using exactly two coins, which can be of any of the denominations in denoms.
    >>> can_pay_with_two_coins([1, 5, 10, 25], 35)
    True
    >>> can_pay_with_two_coins([1, 5, 10, 25], 20)
    True
    >>> can_pay_with_two_coins([1, 5, 10, 25], 12)
    """