

Topic 5.3: Tuple Exercises 1

1. Write a line of code that will:

- a) create an empty tuple called “empty_tuple”

- b) create a tuple called “primes_tuple” that contains the prime numbers from 2 until 13.

- c) create a tuple called “mixed_tuple” containing an integer, a float, a string, and a boolean.

- d) create a tuple that contains 25 elements, each element set to the character “=”.

- e) create a tuple called “nested_tuple” containing two elements: the first element a tuple containing the integers 1 and 2, the second element a list containing the integers 3 and 4.

- f) create a new tuple that contains the elements in (e), and the integer 5 appended to the end

2. Given the tuple:

```
fruits = ("apple", "banana", "orange", "grape", "kiwi")
```

Write a line of code that will print the:

- a) first element

- b) last element using negative indexing

- c) third element

- d) second-to-last element

- e) number of elements in the tuple

3. Given the tuple:

```
letters = ('a', 'b', 'c', 'd', 'e', 'f', 'g', 'h')
```

Write a line of code that will:

a) get first three elements using slicing save them into a tuple variable named abc

b) get elements from index 2 to 5 (inclusive) and save them into a tuple variable named cdef

c) get last three elements using negative indexes and save them into a tuple variable named fgh

d) get the elements with even indexes and save them to a tuple variable named aceg

e) get the elements with odd indexes and save them to a tuple variable named bdfh

f) get the list in reverse order using slicing and save them to a tuple variable named h_to_a

4. Given the tuple:

```
numbers = (7, 4, 6, 3, 5, 8, 9, 4)
```

Write a line of code that will:

a) find the maximum value element

b) find the minimum value element

c) find the sum of all the elements

d) find the index of the first occurrence of the value 4

e) find the number of occurrences of the value 4