

1.1 **QUESTION**
1.1.1. What is the difference between a list and a tuple?
1.1.2. How do you access a specific element in a list or tuple?
1.1.3. How do you slice a list or tuple?
1.1.4. How do you iterate through a list or tuple?
1.1.5. How do you find the length of a list or tuple?
1.1.6. How do you check if an element is in a list or tuple?
1.1.7. How do you sort a list or tuple?
1.1.8. How do you reverse a list or tuple?
1.1.9. How do you remove an element from a list or tuple?
1.1.10. How do you append an element to a list or tuple?

1.2 **ANSWER**
1.2.1. Lists are mutable and tuples are immutable.
1.2.2. Lists: list[index]; Tuples: tuple[index]
1.2.3. Lists: list[start:stop]; Tuples: tuple[start:stop]
1.2.4. Lists: for element in list; Tuples: for element in tuple
1.2.5. Lists: len(list); Tuples: len(tuple)
1.2.6. Lists: element in list; Tuples: element in tuple
1.2.7. Lists: list.sort(); Tuples: tuple(sorted(tuple))
1.2.8. Lists: list.reverse(); Tuples: tuple(reversed(tuple))
1.2.9. Lists: list.remove(element); Tuples: tuple() (cannot remove)
1.2.10. Lists: list.append(element); Tuples: tuple() (cannot append)

1.3 **QUESTION**
1.3.1. How do you create a dictionary?
1.3.2. How do you access a value in a dictionary?
1.3.3. How do you iterate through a dictionary?
1.3.4. How do you check if a key is in a dictionary?
1.3.5. How do you update a value in a dictionary?
1.3.6. How do you remove a key-value pair from a dictionary?
1.3.7. How do you clear a dictionary?
1.3.8. How do you copy a dictionary?

1.4 **ANSWER**
1.4.1. Dictionary: dict[key]=value
1.4.2. dict[key]
1.4.3. for key, value in dict.items()
1.4.4. key in dict
1.4.5. dict[key]=new_value
1.4.6. del dict[key]
1.4.7. dict.clear()
1.4.8. dict.copy()

1.5 **QUESTION**
1.5.1. What is a set?
1.5.2. How do you create a set?
1.5.3. How do you add an element to a set?
1.5.4. How do you remove an element from a set?
1.5.5. How do you check if an element is in a set?
1.5.6. How do you find the union of two sets?
1.5.7. How do you find the intersection of two sets?
1.5.8. How do you find the difference between two sets?

1.6 **ANSWER**
1.6.1. A collection of unique elements.
1.6.2. set([elements])
1.6.3. set.add(element)
1.6.4. set.remove(element)
1.6.5. element in set
1.6.6. set1 | set2
1.6.7. set1 & set2
1.6.8. set1 - set2

1.7 **QUESTION**
1.7.1. How do you create a string?
1.7.2. How do you access a character in a string?
1.7.3. How do you slice a string?
1.7.4. How do you iterate through a string?
1.7.5. How do you find the length of a string?
1.7.6. How do you check if a character is in a string?
1.7.7. How do you convert a string to lowercase and uppercase?

1.8 **ANSWER**
1.8.1. String: 'characters'
1.8.2. string[index]
1.8.3. string[start:stop]
1.8.4. for character in string
1.8.5. len(string)
1.8.6. character in string
1.8.7. string.lower(), string.upper()

1.9 **QUESTION**
1.9.1. How do you create a file?
1.9.2. How do you write to a file?
1.9.3. How do you read from a file?
1.9.4. How do you append to a file?
1.9.5. How do you close a file?

1.10 **ANSWER**
1.10.1. open(filename, mode)
1.10.2. file.write(text)
1.10.3. file.read()
1.10.4. file.append(text)
1.10.5. file.close()