**1) What is the difference between enclosing a list comprehension in square brackets and parentheses?**

Answer 1: Square brackets are used to create a list comprehension, resulting in a list, while parentheses create a generator expression, producing a generator object.

**2) What is the relationship between generators and iterators?**

Answer 2: Generators are a type of iterator. The relationship lies in the fact that generators simplify the creation of iterators by allowing the generation of values on-the-fly, enhancing memory efficiency.

**3) What are the signs that a function is a generator function?**

Answer 3: A generator function contains at least one yield statement. This differentiates it from a regular function, and it allows the function to produce a sequence of values without generating the entire sequence at once.

**4) What is the purpose of a yield statement?**

Answer 4: The yield statement is used in generator functions to produce a value and pause the function's execution, allowing it to resume from that point when the next value is requested. It enables the creation of iterators with efficient memory usage.

**5) What is the relationship between map calls and list comprehensions? Make a comparison and contrast between the two.**

Answer 5: Both map calls and list comprehensions are used for transforming and processing data. List comprehensions are more concise and create lists, while map calls are functional and return map objects. List comprehensions may be more readable, while map calls offer a functional programming alternative.