Flash Quiz 8 Questions
CSE 232 (Introduction to Programming II)

1. What is a `const_iterator` in C++?

    (a) An iterator that allows modification of the container elements, but not itself
    (b) An iterator that allows modification of itself, but not the container elements
    (c) An iterator that allows modification of neither itself, nor the container elements
    (d) An iterator that allows modification of both itself, and the container elements

2. Which of the following is true about iterators?

    (a) A const container can only have const iterators
    (b) A non-const container can only have non-const iterators
    (c) A container being const or non-const has no effect on its iterators
    (d) (a) and (b)

3. Which of the following is **NOT** supported in forward iterators?

    (a) Dereferencing
    (b) Equality checking
    (c) Incrementing
    (d) Decrementing
    (e) They are all supported

4. Which of the following is **NOT** supported in bidirectional iterators?

    (a) Dereferencing
    (b) Equality checking
    (c) Incrementing
    (d) Decrementing
    (e) They are all supported

5. Which of the following is true about `const_iterator`?

    (a) The element pointed by `const_iterator` can be modified
    (b) `const_iterator` can be used with `std::map` and `std::set`
    (c) `const_iterator` is the same as `const iterator`
    (d) All of the choices are true
    (e) None of the choices are true

6. Which of the following is true about iterators?

    (a) Forward iterators support all the functionalities as Bidirectional iterators
    (b) Bidirectional iterators support all the functionalities as forward iterators
    (c) Random access iterators support all the functionalities as bidirectional iterators
    (d) (a) and (c)
    (e) (b) and (c)

7. What is recursion in computer science?

    (a) A process of defining a loop within a function
    (b) A process of running multiple functions in sequence
    (c) A process of running multiple functions in parallel
    (d) A process of defining a function in terms of itself
    (e) A process of iterating over a sequence of functions

8. Which of the following may cause an infinite recursion?

    (a) Incorrect for loop
    (b) Incorrect while loop
    (c) Incorrect base case
    (d) Incorrect update for counter variable
    (e) All of the choices

9. Given the following function:

```
int func(int n) {
 if (n == 1) {
  return 1;
 } else {
  return n + func(n - 1);
 }
```

What is the output of `func(3)`?

(a) 1
(b) 3
(c) 4
(d) 5
(e) 6

10. Which of the following must a recursive function have?

(a) A loop and a counter
(b) A base case and a recursive step
(c) Multiple function parameters
(d) An iterator
(e) All of the choices