Julia Quiz: Multiple Dispatch by CCL

1. Which of the following is NOT true about Multiple Dispatch in Julia?
   - ◯ Methods called for the same function differs with input arguments
   - ◯ The `@which` macro verifies which method was dispatched
   - ◯ The list of methods can be printed by calling `method(generic function)`
   - ◯ Generic functions may only be defined on built-in types

2. After importing + from Base, how do we extend it to compute the union of 2 arrays: $A \cup B$?
   - ◯ `+(a:Array, b::Array) = string(a) * string(b)`
   - ◯ `+(a:Array, b::Array) = [string(a) * string(b)]`
   - ◯ `+(a:Array, b::Array) = union(a,b)`
   - ◯ `+(a:String, b::String) = union(a,b)`

3. If no methods are defined on the inputted arguments for a given function, what error is raised?
   - ◯ `MethodError`
   - ◯ `FunctionError`
   - ◯ `NotImplementedError`
   - ◯ `SyntaxError`

4. Which of the following defined methods will `bar(1.0, 0.0)` call?
   - ◯ `bar(a,b) = println("Hello world")`
   - ◯ `bar(a::Int, b::Int) = println(a+b)`
   - ◯ `bar(a::String, b::Array) = union(a,b)`
   - ◯ `bar(one::Bool, two::Bool) = one && two`

5. Bonus: What are the expressive powers (expressiveness) of No, Single and Multiple dispatch sequentially?
   Hint: Note the number of input arguments.
   - ◯ Constant — Linear — Exponential
   - ◯ Exponential — Linear — Constant
   - ◯ Linear — Constant — Exponential
   - ◯ Exponential — Constant — Linear

Answers: D, C, A, A, A