CSE 341 — Ruby Discussion Questions

1. Write a class `Delay` that implements delays (like the delay function in Scheme). The following code shows how it should work:

```ruby
n = 0
d = Delay.new {n=n+1; 3+4}
d.force
v = d.force
e = Delay.new {1/0}
```

After we evaluate these statements `v` should be 7, but `n` should only be 1 (since we only evaluate the block once). Further, since we never force `e`, we shouldn’t get a divide-by-zero error.

2. Write a `min` method for the `Enumerable` mixin. You’ll need to decide how to handle finding the minimum of an empty collection. Bonus points for handling this in the same way Ruby itself does!
   Hint: look at the implementation of `map` at the end of the `inheritance.rb` handout.

3. Consider the class and module definitions in `self_super.rb` linked from the 341 Ruby web page. Suppose we define a class `C5` as follows:

```ruby
class C5 < C1
  include M2
end
```

What is the result of evaluating these expressions?

```ruby
x = C5.new
x.test1
x.test2
x.kind_of?(C5)
x.kind_of?(M2)
x.kind_of?(M1)
C5.ancestors
C5.superclass
C5.superclass.superclass
C5.superclass.superclass.superclass
```