# CSCI 305 Participation Event 3

## Due Date: February 21, 2018 @ End of Class

**Group Members:**_____

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### Exercise 1

Consider an unknown language with integer and string types in which `1 + 2 * 3` evaluates to `7`, `"1" + "2" + "3"` evaluates to `"123"`, `"1" + 2 + 3` evaluates to `"123"`, and `1 + "2*3"` has a type error. Describe a system of precedence, associativity, overloading, and coercion that could account for this. In your system what is the result of evaluating the expression: `"1" + 2 * 3`?

## Exercise 2

Consider an unknown language with integer and real types in which `1 + 2`, `1.0+2`, `1 + 2.0`, and `1.0 + 2.0` are all legal expressions.

- Explain how this could be the result of coercion, using no overloading
- Explain how this could be the result of overloading, using no coercion
- Explain how this could be the result from subtype polymorphism, with no overloading or coercion