

**Instructions:**

- Do all exercises
- Clearly print your name in the first page of your assignment
- No hand-written answers allowed
- Absolutely no late assignments
- Your assignment should be turned in to D2L
- You **must provide references** to any sources used

**Exercise 1 (4 pts)**

1. What is polymorphism? Provide an example using source code
2. What is inheritance? Describe the differences between public vs private inheritance
3. What is encapsulation?
4. What is the difference between static vs dynamic binding?

**Exercise 1 (8 pts)**

- i. Provide a definition for a prescribed lifecycle, and name two types of prescribed lifecycles
- ii. For each type provide an example (i.e. a use case)

**Research Question (3 pts)**

What does low coupling and high cohesion mean?