ECS769P: Advanced OOP
Lab 9: Generic Algorithms

Exercise 1: Overloading Operators (Core)

From slide 19: We defined a struct `foo` in the lecture. Demonstrate how you can use operator overloading to:

1. Make `foo` compatible with `find`.
2. Allow `foo` values to be passed to standard output (`cout`).

Exercise 2: Evens Only (Core)

From slide 29: Using the standard library algorithms/containers, write a program that first accepts a sequence of integers from the user, and then displays only the even values in order.

Exercise 3: Sum of Squares (Core)

From slide 45: Write and test three functions that takes a vector of integers and uses `accumulate` (from the standard library) to compute the sum of their squares. Each function should use, respectively, a function pointer, a function object, and a lambda expression.