

# Topic 10

## Parameters Case Study

"Thinking like a computer scientist means more than being able to program a computer. It requires thinking at multiple levels of abstract."

— Jeannette M. Wing



Based on slides for Building Java Programs by Reges/Stepp, found at <http://faculty.washington.edu/stepp/book/>

## Case Study

- ▶ This case study involves
  - structured programs
  - input from a user
  - loops
  - variables
  - expressions
  - methods
  - parameters

## Problem Statement

- ▶ A triathlon is an endurance event consisting of a swim, bike, and run portion.



## More details

- ▶ Write a program that determines the average speed of each leg based on a number of participants.
  - Swim is expressed as time per 100m
  - Biking is expressed in miles per hour
  - Running is expressed as time per mile
- ▶ Ask user for number of athletes
- ▶ User inputs swim, bike, and run distances
- ▶ User nput times for each athlete
- ▶ Show results