Design Document and Test Plan

Name of team members who collaborated on the design and test plan:

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Name of programming challenge for which you submit this document: \_Bike-to-Campus Reward Points\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Pseudocode

*(See Ch. 1.6, p. 20 in our textbook for an example of how to write detailed pseudocode)*

* #include iostream
* Use namespace std
* Ask user to enter the number of bike rides to campus
  + 0 = 0 points
  + 1 = 3 points
  + 2 = 10 points
  + 3 = 15 points
  + 4 = 30 points
  + 5 or more = 50 points
* Output the number of points using an if/else branch
* If the number inputted is less than 0, display an error message and loop (ask for a new input)
* End program when a valid input is given

# Test Plan

*(See Ch. 5.13, p. 306 in our textbook for an example of how to write a test plan)*

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| --- | --- | --- | --- |
| **Test #** | **Purpose** | **Input** | **Expected Output** |
| 1 | To see if the points awarded are correct | 0 | “You earned 0 points this semester” |
| 2 | To see if the points awarded are correct | 1 | “You earned 3 points this semester” |
| 3 | To see if the points awarded are correct | 3 | “You earned 15 points this semester” |
| 4 | To see if the points awarded are correct | 6 | “You earned 50 points this semester” |
| 5 | To make sure if the number is less than 0, the program loops with an error message | 0.5 | “Invalid number. Please input another number:” |
| … | *(Feel free to add more test cases)* |  |  |