ENGR–UH 1000 | Lab 0 Report

Pi (pk2269@nyu.edu)

Sep 8, 2020

Contents

1   Problem Identification and Statement.

2   Gathering of Information and Input/Output Description.

3   Test Cases and Algorithm Design.

4   Implementation.

5   Software Testing and Verification.

% Pandoc math demos

$a^2 + b^2 = c^2$

$v(t) = v_0 + \frac{1}{2}at^2$

$\gamma = \frac{1}{\sqrt{1-v^2/c^2}}$

$\exists x \forall y (Rxy \equiv Ryx)$

$p \wedge q \vDash p$

$\Box \diamond p \equiv \diamond p$

$\int_0^1 x dx = \left[\frac{1}{2}x^2\right]_0^1 = \frac{1}{2}$

$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!} = \lim_{n\to\infty}(1 + x/n)^n$

```
1  /*---------------------------------------------*/
2  /* Name: Pi, Student Number: N13394469 */
3  /* Date: Sep 8, 2020. */
4  /* Program: distance.cpp */
5  /* Description: This program computes the distance */
6  /* between two points. */
7  /*---------------------------------------------*/
```

```cpp
8   #include <iostream>
9   #include <cmath>
10  using namespace std;
11  int main()
12  {
13  /* Declare and initialize the variables */
14  double x1 = -1, y1 = -3, x2 = 4, y2 = 6;
15  double length1, length2, distance;
16
17  /* Compute the sides of a right triangle */
18  length1 = x2 - x1;
19  length2 = y2 - y1;
20
21  /* Compute the distance between the two points. */
22  distance = sqrt(length1*length1 + length2*length2);
23
24  /* Print the distance */
25  cout << "The distance between the two points is " << distance << endl;
26   return (0);
27  }
28  /*-------------------------End--------------------*/
```