**Name: MSSV:**

1. **V&V**

**Description:** The purpose is to help users to solve a 2-degree equation (a*x*2+b*x*+c).

**Spec:**  Given input of *a*, *b*, and *c*; the system returns the outputs of *x*1 and *x*2 (extreme cases are temporarily not considered)

Two systems are developed as follows.

|  |  |
| --- | --- |
| SYSTEM 1 | SYSTEM 2 |
|  |  |
| Code:  x1 = (-b +sqrt(DELTA))/2a  x2 = -b -sqrt(DELTA/2a) | Code:  DELTA = (b\*b-4\*a\*c)  x1 = (-b +sqrt(DELTA))/2a  x2 = (-b -sqrt(DELTA))/2a |

What are the problems of those two systems? Write down your answer here.

1. **Test-cases**

**Description:** Some input values

1. How many test-cases we need for the following function *f*1. What are they?

*int f*1(*int* *x*)

if *x* is greater than 10, *f*1 return 2*x*, otherwise it returns -*x*

ANSWER:

1. Check if your test-cases can detect error if *f*1 is implemented as follows

int f1(int x) {

if (x > 10) return 2\*x;

else if (x>0) return -x;

else return 2\*x;

}

In this case, how many test-cases we need to test this function? What are they?

ANSWER:

if (a<10) cout<< b/a;

1. How many test-cases we need to test this function? What are they?

int f2(int x) {

if (x < 10) return 2\*x;

else if (x<2) return -x;

else return 2\*x;

}

In this case, how many test-cases we need to test this function? What are they?

ANSWER:

1. How many test-cases we need to test this function? What are they?

int f3(int x) {

if (log(x\*x\*cos(x)) < 3\*x) return 2\*x;

else return 2\*x;

}

ANSWER: