

# CSCE 747 - Symbolic Execution Activity

**Name(s):**

**1. The loop body of the binary search can be modified to:**

```
if (comparison < 0){
    low = mid + 1;
}
if (comparison > 0){
    high = mid -1;
}
if (comparison = 0){
    return dictValues[mid];
}
```

**Demonstrate using symbolic execution that the path that traverses the false branch of all three statements is infeasible.**

**2. The following method calculates the sum of an array of floats.**

```
float sum(int array[], int len) {  
    float sum = 0.0;  
    int i = 0;  
    while (i < length) {  
        sum = sum + array[i];  
        i = i + 1;  
    }  
    return sum;  
}
```

**Write the pre- and post-conditions for this method.**