CSCE 247 - Loop Testing Activity
Name(s):

1. **Draw the control-flow graph for the following code:**

```
void Binary_search (elem key, elem* T, int size, boolean &found, int &L){
      int bott, top, mid;
      bott = 0;
      top = size-1;
      L = 0;

      if(T[L] == key){
            found = true;
      }else{
            found = false;
      }

      while (bott <=top && !found){
            mid = round((top + bott) / 2);
            if(T[mid] == key){
                  found = true;
                  L = mid ;
            } else{
                  if (T [mid] < key ){
                        bott = mid + 1;
                  }else{
                        top = mid-1;
                  }
            }
      } // while
} //binary_search
```

2. **Identify the subpaths through the loop and draw the unfolded CFG for boundary interior testing.**

3. **Write a test suite that achieves loop boundary coverage**
   (That exercises the loops:
   - Zero times
   - One time
   - Two or more times)