15. State the asymptotic complexity of each of the following code fragments in terms of n, where n is a positive integer. Use Θ notation.

(a) [10 points]

```
for(int i=0; i<n; i++)
  for(int j=n+1; j>i; j=j-2)
    cout << "Hello world" << endl;
```

(b) [10 points]

```
for(int i=1; i<n; i++)
  for(int j=0; j*j<i; j++)
    cout << "Hello world" << endl;
```

16. You are building a cuckoo hash table for the following data set consisting of 8 items. The indices of your has table are $\{0, 1, \ldots 9\}$. The two hash values for each item are listed in the first and second columns of the array below.

Walk through the steps of inserting the items, in the order given in the array.

Ann	1	4
Dan	8	7
Kim	2	8
Sam	5	2
Zoe	3	9
Ted	5	0
Kat	8	2
Max	3	4