$\begin{array}{c} {\rm COSC~201} \\ {\rm Extra~Exercises~-~Stacks~and~Queues} \\ {\rm Fall~2012} \end{array}$

1. Write a program that takes in a string and outputs all permutations of that string recursively using the following prototype:

```
public void permute(String str){ }
[Solution: Permutation.java]
```

- 2. Write a program that takes in an integer and returns the number of 1s in the binary representation of that string recursively. [Solution: HighBits.java]
- 3. Write a recursive method allSums that returns a List;Integer; containing all possible sums that can be formed by using any of the items in an integer array passed to the method at most once. [Solution: Sums.java]