CptS 122 – Data Structures
January 22, 2018

Your Name: _____ TA's Name: _____
ID#: _____ Section #: _____

Take Home: Quiz 2 (15 pts) – Dynamic Singly Linked Lists

1. Write a function `deleteAtPositionN()` for a *singly-linked* list that has the following declaration and precondition:

```
int deleteAtPositionN (struct node **pHead, int n,
                       int *pData);

Precondition: n > 0.
```

The function should find the node at position *n*, and delete it, using function `free()`. The *data* should be returned indirectly through `pData`, then the node must be released back to the *heap*. The first node in the list starts at position 1. The function should return 1 if a node was deleted; 0 otherwise. Assume that `struct node` is defined as follows:

```
struct node
{
     int data;
     struct node *pNext;
};
```