CS 2984
Computational Thinking
Assignment 14
10 points
Done by: individual

A C data structure and the variable first are declared as follows:

```
struct Element {
  int data;
  Element* next;
};

Element* first;
```

The Element structure can be used to form a sequential list of integers. Each element of the list contains a field named data to hold an integer and a field named next to hold a pointer to the following element in the list. An example of such a structure is pictured below. Answer the following questions using the picture below and the declarations above.

(a) Using the original list pictured below, show the statements necessary to add a new list element containing the number 6 in the list following the element that contains 5 and before the element that contains 10.

(b) Using the original list pictured below, show the statements necessary to remove the element with the number 10 from the list.

In each case be sure that you have properly allocated or deallocated the memory as needed.

first

| 5 | | → | 10 | | → | 12 | null |