1. In class, we implemented a linked list using the following definition of nodes:

```c
struct node{
    int value;
    struct node *next;
}
```

For this lab, define the following structure:

```c
struct node{
    int value;
    struct node *next;
    struct node *prev;
}
```

prev is the node that comes before the current node, just like next is the node that comes after it. Implement the linked-list functions that we discussed in lecture (e.g., append, prepend, freeList, insert) so that they work with the new kind of node.

2. Write a function that finds the maximum value in the linked list.