FOR QUESTIONS 1-4 USE THE FOLLOWING INFORMATION:
The variables head, ptr, new, and end are pointer variables that point to a node structure which looks like:

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

1. What does this code do?  ____________________________________________________________ (search)
   ```
   int found = 0;
   // you do not need more than this line to answer the question!
   ptr = head;
   while(ptr != NULL)
   {     if(ptr->data == val)
         {         found = 1;
         break; }
       else { ptr = ptr->next; } }
   ```

2. ________   The below code does which one of the following:  [A]
   ```
   new->next = head
   head = new
   ```
   a. adds a new node to the front of a list
   b. adds a new node to the middle of a list
   c. adds a new node to the end of a list
   d. add a new node to a NULL list

3. Fill in the blank so the following statement dynamically creates a node structure
   ```
   ptr = malloc (________ (struct node));
   ```

4. ________ ptr->next is the same as  [C]
   a. ptr.next
   b. *ptr.next
   c. (*ptr).next
   d. none of the above

5-8. Determine the names of the following bitwise operations from the lettered list given in the box:

5. ________ &   [A]    A. and
6. ________ ^   [D]    B. or
7. ________ <<   [E]    C. complement
8. ________ ~   [C]    D. exclusive or
                      E. left shift
                      F. right shift
FOR QUESTIONS 1-4 USE THE FOLLOWING INFORMATION:
The variables head, ptr, new, and end are pointer variables that point to a node structure which looks like:

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

1. _________ The below code does which one of the following:  (B)
   ```
   new->next = head
   head = new
   ```
   a. adds a new node to the end of a list  
   b. adds a new node to the front of a list  
   c. adds a new node to the middle of a list  
   d. add a new node to a NULL list

2. _________ ptr->next is the same as  (C)
   a. ptr.next  
   b. *ptr.next  
   c. (*ptr).next  
   d. none of the above

3. Fill in the blank so the following statement dynamically creates a node structure
   ```
   ptr = malloc ( ________ ( struct node ));
   ```

4. What does this code do?  (search)
   ```
   int found = 0;
   ptr = head;
   while(ptr != NULL) {
      if(ptr->data = = val) {
         found = 1;
         break;
      }
      else { ptr = ptr->next; }
   }
   ```

5-8. Determine the names of the following bitwise operations from the lettered list given in the box:

5. _________ |  (B)
   A. and
   B. or
   C. complement
   D. exclusive or
   E. left shift
   F. right shift

6. _________ ~  (C)

7. _________ >>  (F)

8. _________ ^  (D)