EECE.2160 Fall 2016: Exam 3
Structure Definitions for Questions 2 & 3

Questions 1c, 1d, & 2c (`LLnode` structure, `addNode`, and `printList` functions)

```
typedef struct node {
   char data;
   struct node *next;
} LLnode;

LLnode *addNode (LLnode *list, char v) {
   LLnode *node = (LLnode *)malloc(sizeof(LLnode));
   node->data = v;
   node->next = list;
   return node;
}

void printList(LLnode *list) {
   LLnode *ptr = list;
   while (ptr != NULL) {
      printf("%c", ptr->data);
      ptr = ptr -> next;
   }
}
```

Question 3a (matrix multiplication)

```
typedef struct {
    int nr;              // Number of rows
    int nc;              // Number of columns
    int mat[10][10];     // 2-D array holding actual matrix
                         //   10 x 10 is max size
} Matrix;
```

Question 3b (find 3-D box with maximum volume)

```
typedef struct {
   double W;         // Width of box
   double L;         // Length of box
   double H;         // Height of box
} Box;
```

SEE OTHER SIDE FOR STRUCTURE DEFINITIONS FOR QUESTION 3C

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Question 3c (print inventory of in stock auto parts)

```
typedef struct {
    char make[10];   // Auto make (i.e., manufacturer)
    int  year;       // Year of manufacture
} Auto;

typedef struct {
    char   name[10]; // Part name
    Auto   type;          // Type of car
    int    inStock;       // = 1 if in stock, 0 otherwise
} AutoPart;
```