

```
/* madd-str.c
   リストは入力に使うのみ.
   add は複雑なので配列に変換して madd-malloc.c を利用.
   問題: struct bnum * を配列形式(madd-malloc.cの形式)の表現に変換せよ.
*/
#include <stdio.h>
#include <stdlib.h>
#define BASE 10
struct bnum {
    int n;
    struct bnum *next;
    struct bnum *prev;
};
struct bnum * new_bnum(int m, struct bnum * current) {
    struct bnum *bn;
    bn = (struct bnum *) malloc(sizeof(struct bnum));
    bn->n=m; bn->next = NULL; bn->prev = current;
    return(bn);
}
struct bnum * str2bnum(char *s) {
    int i=0;
    struct bnum * num;
    struct bnum * t;
    struct bnum * prev;
    prev=num = new_bnum(-1,NULL);
    while ( (s[i] >=0x30) && (s[i] <=0x39) ) {
        t = new_bnum(s[i]-0x30,prev);
        prev->next = t;
        prev=t;
        i++;
    }
    return(num->next);
}
void print_bnum_reverse(struct bnum *x) {
    struct bnum *top;
    top = x;
    while (top->next != NULL) top=top->next;
    while (top != NULL) {
        if (top->n < 0) break;
        printf("%d",top->n);
        top = top->prev;
    }
}
void print_bnum(struct bnum *x) {
    struct bnum *top;
    top = x;
    while (top != NULL) {
        printf("%d",top->n);
        top = top->next;
    }
}

int main() {
    struct bnum *x;
    x = str2bnum("102345");
    print_bnum_reverse(x);
    printf("\n");
    return(0);
}
```