```c
#include <stdio.h>
#include "linklist.h"

void test_get();
void test_insert();
void test_delete();
void test_reverse();
void test_adjmax();

int main(int argc, const char *argv[])
{
        linklist H1, H2;
        int a[] = {1, 4, 6, 8, 10};
        int b[] = {2, 4, 16, 18, 30};
        int i;

        H1 = list_create();
        if (H1 == NULL)
                return;

        H2 = list_create();
        if (H2 == NULL)
                return;

        for (i = 0; i < sizeof(a)/sizeof(int); i++) {
                list_tail_insert(H1, a[i]);
        }

        for (i = 0; i < sizeof(b)/sizeof(int); i++) {
                list_tail_insert(H2, b[i]);
        }

        list_show(H1);
        list_show(H2);

        list_merge(H1, H2);
        printf("merge:\n");

        list_show(H1);
        list_show(H2);

        list_free(H1);
        list_free(H2);

        return 0;
}

void test_adjmax() {
        linklist H;
        linklist r;
        int value;
        int sum;

        H = list_create();
        if (H == NULL)
                return;

        printf("input:");
        while (1) {
```

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                scanf("%d", &value);
                if (value == -1)
                        break;
                list_tail_insert(H, value);
                printf("input:");
        }
        list_show(H);

        r = list_adjmax(H, &sum);
        if (r != NULL && r != H) {
                printf("data=%d, sum=%d\n", r->data, sum);
        }

        list_show(H);

        list_free(H);

}
void test_reverse() {
        linklist H;
        int value;

        H = list_create();
        if (H == NULL)
                return ;

        printf("input:");
        while (1) {
                scanf("%d", &value);
                if (value == -1)
                        break;
                list_tail_insert(H, value);
                printf("input:");
        }

        list_show(H);
        list_reverse(H);
        list_show(H);

        list_free(H);

}

void test_delete() {
        linklist H;
        int value;

        H = list_create();
        if (H == NULL)
                return;

        printf("input:");
        while (1) {
                scanf("%d", &value);
                if (value == -1)
                        break;
                list_tail_insert(H, value);
                printf("input:");
        }
```

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        list_show(H);
        printf("H=%p\n", H);
        H = list_free(H);
        printf("H=%p\n", H);
        list_delete(H, -4);//1 3 5 7
        list_show(H);

        list_free(H);

}

void test_get() {
        linklist H;
        int value;
        linklist p;

        H = list_create();
        if (H == NULL)
                return;

        printf("input:");
        while (1) {
                scanf("%d", &value);
                if (value == -1)
                        break;
                list_tail_insert(H, value);
                printf("input:");
        }

        list_show(H);

        p = list_get(H, 4);//1 3 5 7
        if (p != NULL)
                printf("value=%d\n", p->data);
}

void test_insert() {
        linklist H;
        int value;

        H = list_create();
        if (H == NULL)
                return;

        printf("input:");
        while (1) {
                scanf("%d", &value);
                if (value == -1)
                        break;
                list_tail_insert(H, value);
                printf("input:");
        }

        list_show(H);
        list_insert(H, 100, 0);//1 3 5 7
        list_show(H);
}
```