

alloc1 実行結果

prog3-1.c

code

```
#include <stdio.h>
#include <stdlib.h>

int main() {
    int *array;
    int num, i;
    printf("num > ");
    scanf("%d", &num);
    array = (int *)malloc(num * sizeof(int));
    if (array == NULL) {
        printf("Memory allocation failed\n");
        return 1;
    }

    for (i = 0; i < num; i++) {
        array[i] = 7;
    }
    for (i = 0; i < num; i++) {
        printf("%d ", array[i]);
    }
    printf("\n");

    free(array);
    return 0;
}
```

result

Test 1 passed

入力:

5

出力:

num > 7 7 7 7 7

Test 2 passed

入力:

10

出力:

num > 7 7 7 7 7 7 7 7 7 7

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- Passed: 2
- Failed: 0

sample103-1.c

code

```
#include <stdio.h>
#include <stdlib.h>

int main(void)
{
    char *str;
    int num, i;

    printf("num > ");
    scanf("%d", &num);

    str = (char *)malloc(sizeof(char)*(num+1));
    if(str==NULL) {
        printf("not allocated.\n");
        return 1;
    }

    for(i=0; i<num; i++) {
        *(str+i) = 'a';
    }
    *(str+i) = '\0';
    printf("str: %s\n", str);

    free(str);

    return 0;
}
```

result

Test 1 passed

入力:

10

出力:

num > str: aaaaaaaaaa

Test 2 passed

入力:

5

出力:

num > str: aaaaaa

=====

- Passed: 2
- Failed: 0

sample103-2.c

code

```
#include <stdio.h>

void show_range(int *ptr, int s, int e);

void show_range(int *ptr, int s, int e)
{
    int i;
    for(i=s; i<=e; i++) {
        printf("*ptr+%d: %d, ptr+%d: %p\n", i, *(ptr+i), i, ptr+i);
    }
}

int main(void)
{
    int test[5] = {80, 60, 55, 22, 75};
    printf("---show_range(test, 2, 4)---\n");
    show_range(test, 2, 4);
    printf("---show_range(test, 1, 3)---\n");
    show_range(test, 1, 3);
    return 0;
}
```

result

Test passed

入力:

出力:

```
---show_range(test, 2, 4)---
*ptr+2: 55, ptr+2: 0x7fff3256b018
*ptr+3: 22, ptr+3: 0x7fff3256b01c
*ptr+4: 75, ptr+4: 0x7fff3256b020
---show_range(test, 1, 3)---
*ptr+1: 60, ptr+1: 0x7fff3256b014
*ptr+2: 55, ptr+2: 0x7fff3256b018
*ptr+3: 22, ptr+3: 0x7fff3256b01c
```

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- Passed: 1
- Failed: 0