

Size of Memory on the heap

- Routines and macros are utilized for `size` in `malloc` instead typing in a number directly.
- Two types of results of `sizeof` with variables
 - The actual size of `x` is known at run-time.
 - The actual size of `x` is known at compile-time.

heap1.c

```
int *x = malloc(10 * sizeof(int));  
printf("%d\n", sizeof(x));
```

```
prompt> ./heap1  
4
```

heap2.c

```
int x[10];  
printf("%d\n", sizeof(x));
```

```
prompt> ./heap2  
40
```