14. Memory API

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

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heap2.c

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

https://stackoverflow.com/questions/37538/how-do-i-determine-the-size-of-my-array-in-c