

Let's Try It! Start with Some Arguments

```
void insertion_sort
(int32_t values[], int32_t num_vals)
```

values

12	4	9	1	8
0	1	2	3	4

num_vals is 5

Our Local Variables are Not Initialized

```
int32_t sorted, current, index;
What's in these variables?
Bits!
```

values

12	4	9	1	8
0	1	2	3	4

num_vals is 5

First Loop Iteration (First Card is Sorted Already)

```
for (sorted = 2; num_vals >= sorted;
    sorted++) {
```

values

12	4	9	1	8
0	1	2	3	4

Is num_vals >= sorted? Yes!

↑
sorted

num_vals is 5

Time to Insert the 4 at the Right Position

```
current = values[sorted - 1];
Huh? What's in values[1]?
Still 4, but, logically, it's 'empty.'
```

values

12		9	1	8
0	1	2	3	4

4
current

↑
sorted

num_vals is 5