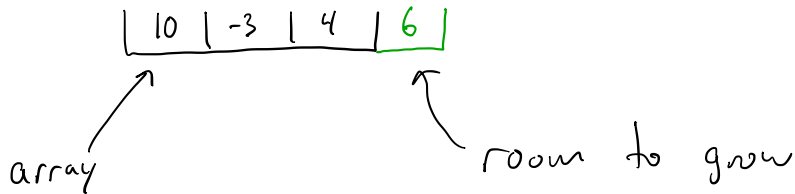
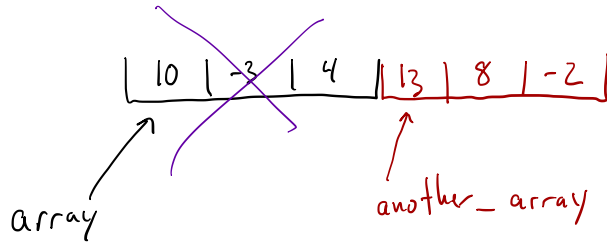


# Resizing Arrays

- Stack allocated arrays can never change size
- The function `realloc()` can resize a heap allocated array
  - The array must remain in a contiguous area of memory
  - If the memory next to the array is not being used, the array can grow into unused memory



What if there is no room to grow?



1. Copy the original array to a new location with enough space for the new size
2. Free the original array
3. Update the pointer

realloc() does the work for you

Void \* realloc(Void \* ptr, size\_t size)

↑ returns a pointer      ↑ original array      ↑ new size, in bytes

- If there is room to grow, the array grows and the original pointer is returned
- If not, a new array is created, the original contents are copied, the original array is freed, and the address of the new array is returned