

d

Cole Howard

```

int *a = new int[10];
int size = 10;
for (i = 0; i < n; i++) {
    if (size == i) {
        int newsize = 3 * size / 5;
        int b* = new int[newsize]; // O(1)
        for (int j = 0; j < size; j++) {
            delete [] a; // O(1)
            a = b;
            size = newsize;
        }
    }
}

```

}

3. size/5

a[i] = i \* i;

if statement is never true

}

$$\sum_{i=0}^n C \quad \cancel{\sum_{j=0}^n C}$$

Size = 10; i = 0

= 6	= 1
= 3	= 2
= 1	= 3
= 0	= 4
...	...
0	n-1

$$\Rightarrow C \cdot n \Rightarrow \Theta(n)$$