123. What is a property of a simple fillable array?

A. an element can be added anywhere in constant time
B. any element can be removed in constant time
C. more that one element can be next to an empty slot
D. elements are presumed to be contiguous

It seems like there are multiple correct options?

A and B are wrong because you have to shift the other elements. C and D contradict each other and I'm pretty sure the answer is D.

Yes, the answer is D.

If I am not mistaken, all elements in an array can be ACCESSED in constant time (something to do with RAM), but adding or removing them requires shifts. I don't really understand answer C, but I know I've read on multiple websites that elements in arrays are contiguous (it's also in the Encyclopedia of Elementary Data Structures somewhere).

Now I'm second guessing myself because I can't find that arrays are necessarily contiguous in the
Encyclopedia. Do you have to shift elements in an array when you remove one???

Subject: Re: Question #123
Posted by lustral on Mon, 23 Jan 2017 21:25:00 GMT

^ No shifting if removing from the "back".

Fillable arrays have contiguous filled and contiguous unfilled portions.