

4-1) Vector Quiz

Due No due date**Points** 5**Questions** 5**Time Limit** None

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	1 minute	3 out of 5

Score for this quiz: **3** out of 5

Submitted Sep 15 at 12:57pm

This attempt took 1 minute.

Question 1

1 / 1 pts

What is the point of writing the Big 3?

- ☐ Don't leak memory
- ☐ Don't get a pointer to another object's private data
- ☐ Don't crash
- ☒ All of the above

Correct!

All of the trouble comes from how a default copy does nothing but copy the value of a variable. Pointers are just numbers. I don't want my pointer to point at your memory.

Question 2**0 / 1 pts**

An ADT can hold pointers but not objects

You Answered☒ True**Correct Answer**☐ False

I'm going to recommend using pointers with containers because the lifetime of objects gets confusing otherwise. When you add to a container, it takes a copy. When you get from a container it gives you a reference to the object inside.

If you are using pointers, those are the same. With objects though... where did the first object that was in the push_back go?

Question 3**1 / 1 pts**

To do my Vector homework, I am just going to finish vector.h and turn it in.

☐ True**Correct!**☒ False

You are going to debug and test it too. This is especially crucial with template classes, as any method you don't test gets deleted.

Question 4

0 / 1 pts

I'd use a vector if my only concern was accessing data at random as fast as possible.

Correct Answer

☐ True

You Answered

☒ False

Other containers have fast lookups (`unordered_map`) but if you don't need the overhead of maps and you know where you want to put your data, Vector is faster.

Other considerations mean picking different ADTs. If I need to delete at random I wouldn't pick Vector since it is $O(n)$ at removing.

I'm brainstorming off topic because programming is fun, but you could take a `u_m`, make the key 0-n like vector with values as your data. You'd end up with a lot of empty spots in your vector though. Sorry, where was I?

Question 5

1 / 1 pts

The difference between stack memory and heap memory is that stack is known at compile time and heap is at run time.

Correct!

☒ True

☐ False

Yup. If you peeked in to an exe, you'd see all of the code and space for all of the variables are there.

Quiz Score: **3** out of 5