How's your weekend? Started HW 7? Started looking for your final project teammates?

good

need to find a partner

but hw7 seems difficult

homework looks fun

nice weekend

3

Today's plan

→ Review Ex 11-3

→ Recap questions

→ In-class Ex 12-1

Ex 11-3: **virtual** functions

→ For polymorphism to work, you cast derived class objects to its base class

→ i.e. the compiler will use the base class memory layout to interpret the object

→ Then, the virtual functions will use the "actual" implementation provided in the derived class

→ class A { virtual void show(); };

→ class B { void show(); };

→ B b; A& a = b; a.show();

→ In the derived class B, we can use A::show() to call the base class's implementation

What concepts/topics have you learned in Day33's videos/slides?

function hiding

override

virtual destructor

stack segment code segmen

abstract class   abstract classes

dynamic dispatch

3

Explain what object slicing is in C++.

Compiler slices out a derived class, ✕
and it can ignore the derived parts
(for example when casting)

The correct answer is: When a derived class is casted back to its base class.
The base class memory layout is used to interpret the memory that slices
the object.

1

What is the keyword **override** in C++?

it simply helps to find errors when overriding functions. (like missing const, etc) ×

help check whether we declare the overwritten function properly ×

The correct answer is: A way to make sure the base class member function is implementing a virtual function in its base class.

2

Explain what function hiding is in C++.

when we have a function with the same name in a derived class, it will hide all other functions with the same name in the base class -- EVEN IF THEY H ✕

when we have a function with same name in derived class as in base class, it will be hidden ✕

The correct answer is: When a derived class member function has the same name but different parameters than one it inherits from the base class.

2

In C++, how do you make an abstract class?

make the constructor protected, or have at least one pure virtual function (=0) ✕
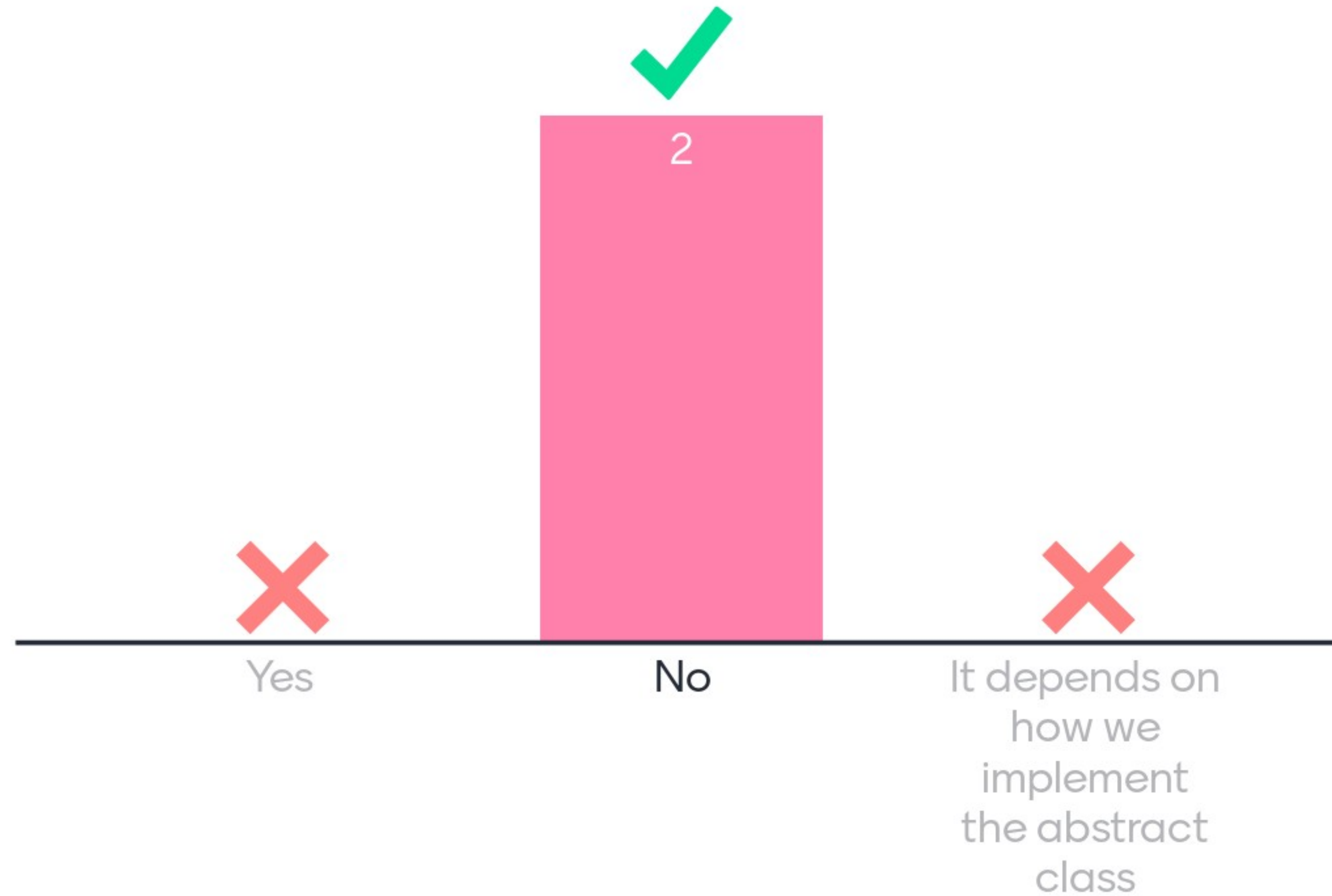
have a pure virtual function ✕

The correct answer is: Pure virtual function (=0), or non-public constructor.

2

Can we create an object from an abstract class?

Ask me anything

0 questions
0 upvotes