Quiz 10

Instructions

There is no time limit, but you may only make one submission.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	78 minutes	9 out of 10

Score for this quiz: **9** out of 10 Submitted Nov 3 at 6:20pm This attempt took 78 minutes.

	Question 1	1 / 1 pts		
Correct!	Which of the following is NOT a typical advantage of generic methods?			
	No need for casting of specified return types			
	Faster execution during run-time			
	Backward-compatibility with older non-generic code			
	Compile-time enforcement of specified argument types			



String element = arr.get(0);

Is there an error in this code?

Yes, a compile-time error will occur because you cannot create an ArrayList of type Double.

Yes, a compile-time error will occur because you cannot assign a Double value to a String variable.

Yes, a run-time error will occur because a Double value cannot be cast to a String value.

No run-time error or compile-time errors will occur.

Internally within the JVM, type parameters are replaced by their bounds (or Object, if unbounded) to become ordinary non-generic classes. What is this simplification process called? Type casting Type erasure Type conversion Type simplification

Question 4 1 / 1 pts

Which of the following statements about generic methods is correct?

	A generic method must reside in a generic class.
	The generic type parameter of a generic method designates the method's return type.
	When calling a generic method, you need to instantiate the type parameters.
Correct!	A generic method must have a generic type parameter.

Question 5 0 / 1 pts

Consider the following code snippet:

```
public class Box<E>
{
    private E data;
    public Box() { . . . }
    public void insert(E value) { . . . }
    public E getData() { . . . }
}
```

What will result from executing the following code?

```
Box<String> box = new Box<>();
...
box.insert("blue Box");
String b = box.getData();
```

run-time error

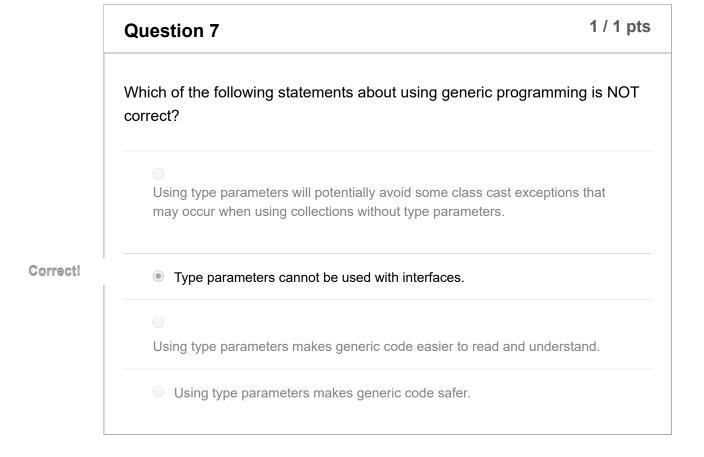
'ou Answered

compiler error

orrect Answer

- no error
- compiler warning

Where do you specify the type parameters of a generic method? Immediately before the parentheses with the parameters Immediately before the return type First, before any modifiers such as "public" or "static" Between the return type and the method name



Question 8 1/1 pts Consider the following code snippet:

public static <E extends Comparable<E>> E min(ArrayList<E>> objects)

What can we conclude about the return type of this method?

The return type is a class that implements the Comparable interface.

The return type is an array list of generic objects.

The return type is a subclass of the ArrayList class.

The return type is a class that extends the Comparable interface.

What is used as a wildcard indicator that matches any class in a type parameter? Property any any &

Suppose that Car is a subclass of Vehicle. Which statement is true about ArrayList<Car> and ArrayList<Vehicle>? Any Vehicle object can be added into an ArrayList<Car>

Correct!

Any Car object can be added into an ArrayList<Vehicle>
 An ArrayList<Car> object can be cast to an ArrayList<Vehicle>
 ArrayList<Car> is a subclass of ArrayList<Vehicle>

Quiz Score: 9 out of 10