

## Kotlin: Classes - Homework

### Question 1:

Classes have a special method that serves as a blueprint for creating objects of that class. What is the method called?

- A. A builder
- B. An instantiator
- C. A constructor
- D. A blueprint

### Question 2:

Which of the following statements about interfaces and abstract classes is NOT correct?

- A. Abstract classes can have constructors.
- B. Interfaces can't have constructors.
- C. Interfaces and abstract classes can be instantiated directly.
- D. Abstract properties must be implemented by subclasses of the abstract class.

### Question 3:

Which of the following is NOT a Kotlin visibility modifier for properties, methods, etc.?

- A. `internal`
- B. `nosubclass`
- C. `protected`
- D. `private`

### Question 4:

Consider this data class: `data class Fish(val name: String, val species:String, val colors:String)` Which of the following is NOT valid code to create and destructure a `Fish` object?

- A. `val (name1, species1, colors1) = Fish("Pat", "Plecostomus", "gold")`

B. `val (name2, _, colors2) = Fish("Bitey", "shark", "gray")`

C. `val (name3, species3, _) = Fish("Amy", "angelfish", "blue and black stripes")`

D. `val (name4, species4, colors4) = Fish("Harry", "halibut")`

Question 5:

Let's say you own a zoo with lots of animals that all need to be taken care of. Which of the following would NOT be part of implementing caretaking?

A. An `interface` for different types of foods animals eat.

B. An `abstract Caretaker` class from which you can create different types of caretakers.

C. An `interface` for giving clean water to an animal.

D. A data class for an entry in a feeding schedule.