

CS239

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Reading Quiz (1/3)

What is the role of the `protected` keyword in Java?

- 1 It indicates that the contents of a variable cannot be modified.
- 2 It is an access specifier that provides a level of access somewhere between `public` and `private` .
- 3 It indicates that a particular class may not be subclassed.

Reading Quiz (2/3)

Which of the following statements is true?

- 1 A reference variable may only hold an object reference if there is an exact match between the type of the object and the type of the variable.
- 2 A reference variable may hold object references of non-matching types, as long as the object type is a subclass of the variable type.

Reading Quiz (3/3)

Which of the following is described as “dynamic binding”?

- 1 The contents of variables may change dynamically at run-time.
- 2 An object may dynamically change its superclass at run-time.
- 3 The JVM dynamically determines which method to call based on an object's type at run-time.

Clicker Question

```
1 Violin v1 = new Violin();  
2 Instrument instrument = v1;  
3 instrument.play();  
4 v1.pluck();
```

This code:

- 1 Does not compile.
- 2 Compiles, but throws an exception at run-time.
- 3 Runs without error.

Clicker Question

```
1 Instrument instrument = new Violin();  
2 Violin v1 = instrument;  
3 instrument.play();  
4 v1.pluck();
```

This code:

- 1 Does not compile.
- 2 Compiles, but throws an exception at run-time.
- 3 Runs without error.

Clicker Question

```
1 Instrument instrument = new Violin();  
2 Harmonica h1 = (Harmonica)instrument;  
3 h1.play();
```

This code:

- 1 Does not compile.
- 2 Compiles, but throws an exception at run-time.
- 3 Runs without error.

Clicker Question

```
1 Violin v1;  
2 Object o1 = new Violin();  
3  
4 System.out.println(o1.toString());  
5 v1 = (Violin)o1;  
6 System.out.println(v1.toString());  
7 v1.play();
```

This code:

- 1 Does not compile.
- 2 Compiles, but throws an exception at run-time.
- 3 Runs without error.