

# Solutions to Quick Check Questions

## 4

## Defining Instantiable Classes

### 4.1 Defining Instantiable Classes



#### Quick Check

1. The following is invalid. Why?

```
public void myMethod( int one )
{
    return (one + one) ;
}
```

*A void method cannot return a value, so a return statement inside a void method does not make sense and invalid.*

2. Which of the following methods are class methods?

```
1 —> public static void one( ) { ... }
2 —> private int two( ) { ... }
3 —> private static int three( ) { ... }
4 —> public float four( ) { ... }
```

*1. Class*

2. *Instance*

3. *Class*

4. *Instance*

## 4.2 Instantiable Classes and Constructors



### Quick Check

1. Which of the following constructors are invalid?

1 —→ `public int ClassA( int one )`  
`{`  
    `...`  
`}`

2 —→ `public ClassB( int one, int two )`  
`{`  
    `...`  
`}`

3 —→ `void ClassC( )`  
`{`  
    `...`  
`}`

1. *Invalid. The constructor does not have a return type.*

2. *Valid.*

3. *Invalid. The void modifier is not valid with the constructor.*

2. Are there any conflicts in the following three constructors for ClassX to be valid?

1 —→ `public ClassX( int X )`  
`{`  
    `...`  
`}`

2 —→ `public ClassX( float X )`  
`{`

```

        ...
    }
3 → public ClassX( int Y )
    {
        ...
    }

```

*Constructor 1 and 3 will conflict because both declare one parameter of type int.*

### 4.3 Visibility Modifiers: public and private

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1. If the data member `feeRate` is private, is the following statement valid?

```
feeCharge = currencyChanger.feeRate;
```

*No. Direct access is not valid for a private data member.*

2. Suppose you wrote down important information such as your bank account number, student registration ID, and so forth, on a single sheet of paper. Will this sheet be declared private, and kept in your desk drawer, or public, and placed next to the dorm's public telephone?

*Should be declared private.*

### 4.4 Local Variables, Return Values, and Parameter Passing

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No Quick Check Questions.

### 4.5 Loan Calculator Program with an Instantiable Class

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No Quick Check Questions.

