

FPP Quiz 1

```
1. class MyClass{
    System.out.println("hello");
}
```

When you compile/run this program the result is:

- a. Outputs hello to the console
- b. Compiler error
- c. Runtime exception

```
2. class MyClass {
    public static void main(String[] args) {
        myMethod();
    }

    public void myMethod() {
        System.out.println("hello");
    }
}
```

When you compile/run this program the result is:

- a. Outputs "hello" to the console
- b. Compiler error
- c. Runtime exception

```
3. class MyClass {
    public static void main(String[] args) {
        MyClass m = new MyClass();
        m.myMethod();
    }
    private void myMethod() {
        System.out.println("hello");
    }
}
```

When you compile/run this program the result is:

- a. Outputs "hello" to the console
- b. Compiler error
- c. Runtime exception

```
4. class MyClass {
    public static void main(String[] args) {
        AnotherClass a = new AnotherClass(new MyClass());
    }
    private void myMethod() {
```

```

        System.out.println("hello");
    }
}

```

```

class AnotherClass {
    AnotherClass(MyClass m) {
        m.myMethod();
    }
}

```

When you compile/run this program the result is:

- a. Outputs "hello" to the console
- b. Compiler error
- c. Runtime exception

5.

```

class MyClass {
    public static void main(String[] args) {
        AnotherClass a = new AnotherClass(new MyClass());
    }
    private void myMethod() {
        System.out.println("hello");
    }
}

class AnotherClass {
    AnotherClass(MyClass m) {
        myMethod();
    }
}

```

When you compile/run this program the result is:

- a. Outputs "hello" to the console
- b. Compiler error
- c. Runtime exception

6.

```

class MyClass {
    public static void main(String[] args) {
        AnotherClass a = new AnotherClass(new MyClass());
        a.anotherMethod();
    }
    void myMethod() {
        System.out.println("hello");
    }
}

class AnotherClass {
    MyClass m;
    AnotherClass(MyClass m) {

```

```

        this.m = m;
        anotherMethod();
    }
    void anotherMethod() {
        m.myMethod();
    }
}

```

When you compile/run this program the result is:

- a. Outputs "hello" to the console
- b. Outputs "hello" *twice* to the console
- c. Compiler error
- d. Runtime exception

```

7. class MyClass {
    public static void main(String[] args) {
        AnotherClass a = new AnotherClass(new MyClass());
        a.anotherMethod();
    }
    void myMethod() {
        System.out.println("hello");
        a.anotherMethod();
    }
}

class AnotherClass {
    MyClass m;
    AnotherClass(MyClass m) {
        this.m = m;
    }
    void anotherMethod() {
        System.out.println("hello");
        m.myMethod();
    }
}

```

When you compile/run this program the result is:

- a. Continuously outputs "hello" to the console
- b. Compiler error
- c. Runtime exception

8.

```
class MyClass2 {
    AnotherClass a;

    public static void main(String[] args) {
        int n = 0;
        if(args[0] != null) {
            n = Integer.parseInt(args[0]);
        }
        MyClass2 m = new MyClass2();
        m.a = new AnotherClass(m);
        m.a.anotherMethod(n);
    }
    void myMethod(int k) {
        if(k == 0 || k == 1) {
            System.out.println("hello");
            return;
        }
        a.anotherMethod(--k);
    }
}

class AnotherClass {
    MyClass2 m;
    AnotherClass(MyClass2 m) {
        this.m = m;
    }
    void anotherMethod(int k){
        m.myMethod(--k);
    }
}
```

When you run this program like this:

```
java MyClass2 n
```

where n is any positive integer, the result is:

- Outputs "hello" to the console
- Stack overflow exception
- Code will not compile because of a "cyclic reference"

9. When the main method below is run (to the right), what happens?

- "Times through the loop: 0" is printed to the console
- "Times through the loop: 1" is printed to the console.
- "Times through the loop: n" is printed to the console for some $n > 1$.
- The while loop does not terminate.

```
public class Test {
    public static void main(String[] args) {
        Test t = new Test();
        t.run();
    }
    public void run() {
        int loopcount = 0;
        double scalar = 0.1;
        double x = 0.9;
        double y = 0.7;
        while (x - scalar != y + scalar) {
            x *= scalar;
            y *= scalar;
            scalar *= scalar;
            ++loopcount;
        }
        System.out.println("Times through the loop: "
            + loopcount);
    }
}
```

