This quiz is to be taken by yourself with closed books, closed notes, no calculators.

What is the output produced by this program? (Hint: Draw Stack Frames!)

```java
public class Mystery
{
    public static void main( String[] args )
    {
        Mystery ref = new Mystery();

        System.out.println( ref.mystery( 5 ) );
    }

    private int mystery( int a )
    {
        int b = a + 3;

        if ( b >= 6 )
        {
            System.out.println( b );
            b = a + mystery( a - 1 );
            System.out.println( a );
        }
        else
        {
            System.out.println( "Whoa!" );
            b = a;
            System.out.println( a );
        }

        return b;
    }
}
```

Output
Given the following definitions:

```java
public interface Speakable {
    public String speak();
}
```

```java
public class Puppy implements Speakable {
    private static final String PUPPY_SPEAK = "Bark";

    public Puppy() {
        // ctor initialization here
    }

    public String speak() {
        return PUPPY_SPEAK;
    }

    public void sleep(int time) {
        // puppy sleeps for time seconds
    }
}
```

```java
public class Kitty implements Speakable {
    private static final String KITTY_SPEAK = "Meow";

    public Kitty() {
        // ctor initialization here
    }

    public String speak() {
        return KITTY_SPEAK;
    }

    public void wag() {
        // kitty wags its tail
    }
}
```

And the following variable definitions:

```java
private Puppy puppy;
private Kitty kitty;
private Speakable speakable;
```

Indicate which are valid Java statements. Consider each statement executed sequentially in the order it appears.

A) Invalid Java statement – Compiler Error
B) Valid Java statement – No Compiler Error

```java
kitty = new Kitty();
puppy = new Puppy();
puppy.speak();
puppy.wag();
puppy.sleep(1000);
kitty.speak();
kitty.wag();
kitty.sleep(2000);
speakable = kitty;
speakable.speak();
speakable.wag();
speakable = puppy;
speakable.speak();
speakable.wag();
speakable = new Speakable();
puppy = kitty;
speakable = new Speakable();
```