

```

public class Lamb extends Ham {
    public void b() {
        System.out.print("Lamb b ");
    }
}

public class Ham {
    public void a() {
        System.out.print("Ham a ");
        b();
    }

    public void b() {
        System.out.print("Ham b ");
    }

    public String toString() {
        return "Ham";
    }
}

```

```

public class Spam extends Yam {
    public void b() {
        System.out.print("Spam b ");
    }
}

public class Yam extends Lamb {
    public void a() {
        System.out.print("Yam a ");
        super.a();
    }

    public String toString() {
        return "Yam";
    }
}

```

What is the output of the following client code?

```

Ham[] food = {new Lamb(), new Ham(), new Spam(), new Yam()};
for (int i = 0; i < food.length; i++) {
    System.out.println(food[i]);
    food[i].a();
    System.out.println(); // to end the line of output
    food[i].b();
    System.out.println(); // to end the line of output
    System.out.println();
}

```

Inheritance Hierarchy



Output:

	a	b	toString
Ham	Ham a b()	Ham b	Ham
Lamb	Ham a b()	Lamb b	Ham
Yam	Yam a Ham a b()	Lamb b	Yam
Spam	Yam a Ham a b()	Spam b	Yam

Ham  
 Ham a Lamb  
 Lam b  
 Yam  
 Ham a Ham b  
 Ham b  
 Yam  
 Yam a Ham a ~~Spam~~ b  
 Lamb b

Note: Arrows okay too!