# Explanation: Q3 – this, Method Overriding, and Variable Shadowing

class Super {  
 int num = 20;  
  
 public void display() {  
 System.out.println("super class method");  
 }  
}  
  
public class ThisUse extends Super {  
 int num;  
  
 public ThisUse(int num) {  
 this.num = num;  
 }  
  
 public void display() {  
 System.out.println("display method");  
 }  
  
 public void Show() {  
 this.display(); // Call to overridden method  
 display(); // Same as above  
 System.out.println(this.num); // Refers to current class's num  
 System.out.println(num); // Same as this.num  
 }  
  
 public static void main(String[] args) {  
 ThisUse o = new ThisUse(10);  
 o.Show();  
 }  
}

## Expected Output:

display method  
display method  
10  
10

## Explanation:

1. this.display();   
 - Calls the overridden method display() in the ThisUse class → "display method"  
  
2. display();   
 - Equivalent to this.display(); → Also "display method"  
  
3. System.out.println(this.num);   
 - Accesses the num variable in the ThisUse class, which was initialized to 10 → 10  
  
4. System.out.println(num);   
 - Same as above (refers to this.num) → 10

## Concepts Demonstrated:

* •Method overriding: The display() method in the subclass overrides the one from Super.
* Shadowing: The num variable in ThisUse hides the one in Super.
* Use of this: Refers explicitly to the current object’s variables or methods.
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