public class Student
{
    private int id;
    private String name;

    public Student( String name, int id )
    {
        this.name = name;
        this.id = id;
    }

    public String toString()
    {
        return("Name: " + name + " ID: " + id );
    }
}

public class StudentEmployee extends Student
{
    private int hours;
    private double wage;

    public StudentEmployee( String name, int id, int hours, double wage )
    {
        super( name, id );
        this.hours = hours;
        this.wage = wage;
    }

    public double earnings()
    {
        return( hours * wage );
    }

    public String toString()
    {
        return( super.toString() + " Earnings: " + earnings() );
    }
}
1. This question refers to the code on the opposite page.

   (a) Which of the code fragments below would result in a compilation error. You can indicate your answer by circling the corresponding number.

   i. `StudentEmployee se = new StudentEmployee( "Matthew Nguyen", 43214321, 10, 12.5 );
      Student s = se;`
   
   ii. `StudentEmployee se = new StudentEmployee( "Matthew Nguyen", 43214321, 10, 12.5 );
        Student s = se;
        s.earnings();`
   
   iii. `Student s = new Student( "Sally Chen", 12341234 );
        StudentEmployee se = s;`

   (b) Show the output for the following few lines of code:

   ```java
   StudentEmployee se = new StudentEmployee( "Matthew Nguyen", 43214321, 10, 12.5 );
   Student s = se;
   System.out.println( s.toString() );
   ```

2. Suppose we have a stack `s` that stores strings. Show the output for the following statements, assuming we start with an empty stack.

   ```java
   s.push("Ron");
   s.push("Dumbledore");
   System.out.println( s.pop() );
   s.push("Harry");
   s.push("Hermione");
   System.out.println( s.pop() );
   System.out.println( s.pop() );
   s.push("Voldemort");
   System.out.println( s.pop() );
   ```