

```
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() );
    }
}
```

Quiz 3

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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:

```
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.

```
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() );
```