

Quiz Submissions - Quiz #6



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Attempt 1

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Submission View

You successfully submitted your quiz.

Question 1

0 / 1 point

Can an object of child type be assigned to a variable of the parent type?, for example

```
Card crd;
```

```
BirthdayCard bd = new BirthdayCard("Lucinda",42);
```

```
crd = bd;
```

- ☐ a) No, there must be always an exact match between the variable and the object type
- ☒ b) No, but an object of a parent type can be assigned to a variable of child type
- ☐ c) Yes, any object can be assigned to any reference variable
- ☒ d) Yes, an object can be assigned to a reference variable of parent class

Question 2

1 / 1 point

Static method can be overridden

- ☐ True
- ☒ False

Question 3

0 / 1 point

What is an advantage of polymorphism?

- ☒ a) The same program logic can be used with objects of several types
- ☐ b) Variables can be reused to save memory



☐ c) Constructing new object from old objects of a similar type saves time



d) Polymorphism is a dangerous aspect of inheritance and should be avoided

Class GreetingCard has fields name and price. The class also overrides method toString to return only the name. ValentineCard and BirthdayCard are subclasses of GreetingCard. ValentineCard has a greeting field with the value "Happy Valentine". BirthdayCard has a greeting field with the value "happyBirthday" and an ageInyears field. All classes have private fields and accessors to those fields.

Question 4

0 / 1 point

Override method toString of class GreetingCard

```
@Override
public String toString(){
    System.out.println("The name card: " + getName());
    System.out.println("The price is : " + getPrice());
}
```

The correct answer is not displayed for Written Response type questions.

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```
@Override
public String toString(){
    return name;
}
```

Question 5

1 / 2 points

Override method toString of class ValentineCard so that it would return the value "Happy Valentine Bob", with Bob being the the value in the name field. Use the toString method from the superclass GreetingCard in your solution

```
@Override
public String toString(){
    System.out.println("Happy Valentine " + getName());
}
```

The correct answer is not displayed for Written Response type questions.

▼ Hide Feedback

```
@Override

public String toString(){

    return greeting + " " + super.toString();

}
```

Question 6

0 / 2 points

Override equals method of class BirthdayCard so that two BirthdayCard objects are considered equal if they have the same name value and the same age value

```
@Override
public boolean equals(Object obj){
    if(this == obj)
        return true;
    if(obj == null)
        return false;
    if(this == null && obj !=null)
        return false;
    BirthdayCard other = new BirthdayCard();
    if(!other.getName().equals(obj.getName()))
        return false;
    if(other.getAge() != obj.getAge())
        return false;
    return true;
}
```

The correct answer is not displayed for Written Response type questions.

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```
@Override

public boolean equals(Object obj) {
    if(obj == null){
        return false;
    }

    if (this == obj) {
        return true;
    }
}
```

```

    }

    if (!(obj instanceof Birthday)) {
        return false;
    }

    Birthday other = (Birthday) obj;

    if (this.getName() == null) {
        if (other.getName() != null) {
            return false;
        }
    }
    else if (!this.getName().equals(other.getName())) {
        return false;
    }
    if (this.age != other.age) {
        return false;
    }
    return true;
}

```

Question 7

1 / 1 point

What is polymorphism in Java?

- ☒ a) It is when a single variable is used with several different types of related objects at different places in a program
- ☐ b) It is when a program uses several different types of objects, each with its own variable
- ☐ c) It is when a single parent class has several methods with the same name but different parameter types
- ☐ d) It is when a class has several methods with the same name but different parameter types

Question 8

0 / 1 point

Static method can be overloaded

- ☒ True
- ☐ False

Question 9

1 / 1 point

Overriding methods invoked by objects can be prevented using the modifier final ✓ in the method signature

Question 10

1 / 1 point

private methods can be overridden

☐ True

✓ ☒ False

Attempt Score: 5 / 12

Overall Grade (highest attempt): 5 / 12

Done