

CSE110 Review Questions

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1 Introduction to Classes

Question 1 Which of the following enforces Encapsulation?

- a) Make instance variables private
- b) Make methods public
- c) Make the class final
- d) Both a and b
- e) All of the above

Question 2 Use the following class to answer the questions below:

```
public class Store {
    private int quantity;
    private double price;

    public Store(int q, double p) {
        quantity = q;
        price = p;
    }

    public int getQuantity() {
        return quantity;
    }

    public void setPrice(double p) {
        price = p;
    }

    public double calcTotal() {
        return price * quantity;
    }
}
```

- a) What is the name of the class?
- b) List all instance variables of the class.
- c) List all methods of the class.
- d) List all mutators in the class.
- e) List all accessors in the class.
- f) List which method is the constructor.
- g) Write a mutator for the quantity.
- h) Write an accessor for the price.
- i) Write a line of code that will create an instance called videoStore that has quantity 100 and a price of 5.99.
- j) Call the calcTotal method with the videoStore object (from part i) to print out the total.

Question 3 True or False? If no constructor is provided, then Java automatically provides a default constructor.

Question 4 True or False? A method must have at least 1 return statement.

Question 5 Correct the following class definition if you think it will not work:

```
public class Student {
    private String name, major;

    public Student() {
        name = "???";
        major = "xxx";
    }

    public Student(String n, String m) {
        n = name;
        m = major;
    }

    public String getMajor() {
        return m;
    }

    public String getName() {
        return n;
    }
}
```

Question 6 Implement a class called AsuStudent. The class should keep track of the student's name, number of classes registered, hours spent per week for a class (consider a student devotes the same amount of time for each of his/her classes per week). Implement a toString method to show the name and number of classes registered by a student, a getName method to return the name of the student, a getTotalHours method to return the total number of hours per week, and a setHours method to set the number of hours the student devotes for each class.