AP Computer Science A
Ticket Out the Door
Set 19: Overloading

Name _____ Period _____

Skill 19.01 Exercise 1

(a) What does it mean to overload a method or constructor?

(b) What is the purpose of overloading in Java?

(c) Does the class shown to the right illustrate overloading? Explain.

```
public MyClass{
    String a;

     MyClass(int a){

          this.a = String.valueOf(a);
     }
     MyClass(double a){

         this.a = String.valueOf(a);
     }
     MyClass(boolean a){

          this.a = String.valueOf(a);
     }
}
```

Skill 19.02 Exercise 1

```
class MyClass {
   int height;
   MyClass() {
      System.out.println("bricks");
      height = 0;
   }
   MyClass(int i) {
      System.out.println("Building a new House that is " + i + " feet tall");
      height = i;
   }
}
```

Refer to the MyClass class above. What is printed when the following is code is executed from the main method of the driver class?

(a) MyClass t = new MyClass(0);

(b) new MyClass();

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Skill 19.02 Exercise 2

Consider the following class definition. Each object of the class `Item` will store the item's name as `itemName`, the item's regular price, in dollars, as `regPrice`, and the discount that is applied to the regular price when the item is on sale as `discountPercent`. For example, a discount of 15% is stored in `discountPercent` as 0.15.

```
public class Item
{
  private String itemName;
  private double regPrice;
  private double discountPercent;
  public Item (String name, double price, double discount)
  {
    itemName = name;
    regPrice = price;
    discountPercent = discount;
  }
  public Item (String name, double price)
  {
    itemName = name;
    regPrice = price;
    discountPercent = 0.25;
  }
  /* Other methods not shown */
}
```

Which of the following code segments, found in a class other than `Item`, can be used to create an item with a regular price of $10 and a discount of 25% ?

I. `Item b = new Item("blanket", 10.0, 0.25);`
II. `Item b = new Item("blanket", 10.0);`
III. `Item b = new Item("blanket", 0.25, 10.0);`

Skill 19.03: Exercise 1

(a) Does the class shown to the right illustrate overloading? Explain.

```
public MyClass{
    String a;

     MyClass(int a){

          this.a = String.valueOf(a);
     }
     int doSomething(int i){
          return i;
     }
     String doSomething(int i){
          return a;
     }
}
```