```
//Method1:
        public static void simpleInterest(double bal, double rate)
        {
        double interest;
        interest = bal * rate;
        System.out.println(" #1_Interest on " + bal + " at " +
        rate + " interest rate is " + interest);
        }

        //Method2:
        public static void simpleInterest(double bal, int rate)
        // Notice rate type
        {
        double interest, rateAsPercent;
        rateAsPercent = rate/100.0;
        // Converts whole number rate to decimal equivalent
        interest = bal * rateAsPercent;
        System.out.println(" #2_Interest on " + bal + " at " + rate + " interest rate is " + interest);
        }

        //Method3:
        public static void simpleInterest(int rate, double bal)
        // Notice rate type
        {
        double interest, rateAsPercent;
        rateAsPercent = rate/100.0;
        // Converts whole number rate to decimal equivalent
        interest = bal * rateAsPercent;
        System.out.println(" #3_ Interest on " + bal + " at " + rate + " interest rate is " + interest);
        }


        /*public static double simpleInterest(int rate, double bal)
        {
                double interest, rateAsPercent;
                rateAsPercent = rate/100.0;
                // Converts whole number rate to decimal equivalent
                interest = bal * rateAsPercent;
                System.out.println(" #4_ Interest on " + bal + " at " + rate + " interest rate is " + interest);
      return interest;
                }
        */
```

```
public static void main(String[]args){
        //Q1: following code will work why or why not? which method will it print?\
        simpleInterest(1000, 0.04);

//yes it will work, because there is an int and a double and it will print method 3

        //Q2: following code will work why or why not? which method will it print?
        // simpleInterest (1000, 4);

//it will not work, because these numbers can fit in any method, and they will
compete

         //Q3:following will work why or why not? which method will it print?
        //simpleInterest(1000.0, 4);

//yes, because there is a method for a double and an int, method 2

        //Q4:following code will work why or why not? which method will print- what will be printer?
        // simpleInterest(1000.0, 0.04);

//yes, it will work because there is a method for both doubles, method 1
//#1_Interest on 1000 at 0.04 interest rate is 40

        //Q5: following code will work why or why not? which method will print- what will be printeD?
        //  simpleInterest(1000, 4);

//it will not work, because these numbers can fit in any method, and they will
compete
//it will not print anything

        //Q6:What if we added another  method  above with a method header: public static double
simpleInterest( int rate, double bal)
        //Would the compiler see it as a different method and be happy :) or not Happy :( Why?

//the compiler would not be happy, because the signature is the same as method 3

        //Q7: Write the signature of Method 1 and Method 2

//method 1: simpleInterest(double bal, double rate)
//method 2: simpleInterest(double bal, int rate)

        }

}
```