```
public class Loan {
         private double annualInterestRate;
         private int numberOfYears;
         private double loanAmount;
         private java.util.Date loanDate;

         /** Default constructor */
         public Loan() {
         this(2.5, 1, 1000);
         }

      /** Construct a loan with specified annual interest
rate,
         number of years, and loan amount
14 */
public Loan(double annualInterestRate, int numberOfYears,
double loanAmount) {
this.annualInterestRate = annualInterestRate;
this.numberOfYears = numberOfYears;
this.loanAmount = loanAmount;
loanDate = new java.util.Date();
}

/** Return annualInterestRate */
 public double getAnnualInterestRate() {
return annualInterestRate;
 }

 /** Set a new annualInterestRate */
 public void setAnnualInterestRate(double
annualInterestRate) {
 this.annualInterestRate = annualInterestRate;
 }

 /** Return numberOfYears */
 public int getNumberOfYears() {
 return numberOfYears;
 }
```

```
 /** Set a new numberOfYears */
 public void setNumberOfYears(int numberOfYears) {
this.numberOfYears = numberOfYears;
 }

 /** Return loanAmount */
 public double getLoanAmount() {
 return loanAmount;
 }

 /** Set a new loanAmount */
 public void setLoanAmount(double loanAmount) {
 this.loanAmount = loanAmount;
 }

 /** Find monthly payment */
public double getMonthlyPayment() {
 double monthlyInterestRate = annualInterestRate / 1200;
double monthlyPayment = loanAmount * monthlyInterestRate /
(1 -
 (1 / Math.pow(1 + monthlyInterestRate, numberOfYears *
12)));
 return monthlyPayment;
 }

 /** Find total payment */
 public double getTotalPayment() {
 double totalPayment = getMonthlyPayment() * numberOfYears *
12;
 return totalPayment;
 }

 /** Return loan date */
 public java.util.Date getLoanDate() {
return loanDate;
 } }
```