

ICSE J

Java for Class X Computer Applications

Java Program to Calculate Compound Interest

Here is a Java Program to calculate Compound Interest.

```
1 public class CompoundInterest {  
2  
3     public void calculate(int p, int t, int r, int n) {  
4         double amount = p * Math.pow(1 + (r / n), n * t);  
5         double interest = amount - p;  
6         System.out.println("Compound Interest is " + interest);  
7         System.out.println("Amount is " + amount);  
8     }  
9 }
```

We take principal (p), time (t), rate of interest (r) and the number of times the interest is compound (n) as inputs. Amount is calculated using the formulae $p * (1 + r/n)^{nt}$. In Java, the Math.pow() function is used to calculate powers. For example, to calculate 3^2 , we use Math.pow(3,2). After finding amount, we find interest by subtracting principal.

Sample Execution :

Input :

p = 3400

t = 3

r = 4

n = 2

Output :

Compound Interest is 2475200.0

Amount is 2478600.0