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Homework: Class method and variable calling

Question:

1. Write a program to calculate cube input will be sent through method arguments
2. Write a program to calculate simple interest
3. Write a program to calculate compound interest

Answer:

```
public class Qn1_2_3 {  
  
    double cube(double n) {  
        return n*n*n;  
    }  
  
    double simpleInterest(int p, double r, int t) {  
        return (p*r*t)/100;  
    }  
  
    double compoundInterest(int p, double r, int t, int n) {  
        return p/100*pow(1+r/n,n*t)-p;  
    }  
  
    double pow(double x, int y) {  
        double ans = 1;  
        for(;y>=1;y--)  
            ans*=x;  
        return ans;  
    }  
}
```

```
public class TestQn1_2_3 {  
    public static void main(String[] args) {  
  
        Qn1_2_3 q = new Qn1_2_3();  
  
        int n=2;  
        System.out.println(n+"^3 = "+q.cube(n));  
  
        int principal = 100000;  
        double interestRate = 10.0;
```

```

        int tenure = 2;
        int compound = 1;

        System.out.println("\nPrincipal: "+principal+"\nRate of Interest:
"+interestRate+"\nTenure: "+tenure+" years"+"Annual compound frequency: "+compound);
        System.out.println("\nSimple Interest: "+q.simpleInterest(principal, interestRate,
tenure));

        System.out.println("Compound Interest: "+q.compoundInterest(principal,
interestRate, tenure, compound));

    }
}

```

Question:

4. The marks obtained by a student in 5 different subjects are input through the method call. The student gets a division as per the following rules:

- a. Percentage above or equal to 60 - First division
- b. Percentage between 50 and 59 - Second division
- c. Percentage between 40 and 49 - Third division
- d. Percentage less than 40 - Fail
- e. Write a program to calculate the division obtained by the student.

Answer:

```

public class Q4 {
    String studendDivision(int a, int b, int c, int d, int e ) {
        double per = (a+b+c+d+e)/5;
        System.out.println("Percentage of Student: "+per);
        if(per>=60)
            return "First division";
        else if(per>=50)
            return "Second division";
        else if(per>=40)
            return "Third division";
        else
            return "Fail";
    }
}

```

```
public class TestQ4 {  
    public static void main(String[] args) {  
        Q4 s = new Q4();  
        System.out.println("Division of student: "+s.studendDivision(55, 60, 80, 90, 40));  
    }  
}
```