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3. Create a library for operations like sum, difference multiplication and division of 2

numbers. Use appropriate concept of Java support and demonstrate the same.

CODE

```java
import java.util.scanner;
import math.*;

class Arithmetic
{
    int ch;
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int a,b;
        System.out.println("Enter 1st number: ");
        a=sc.nextInt();
        System.out.println("Enter 2nd number: ");
        b=sc.nextInt();
        add ad=new add();
        subtract sub=new subtract();
        multiply mul=new multiply();
        division div=new division();
        do{
            System.out.println("\tMENU:\n1) Addition\n2) Subtraction\n3) Multiplication\n4) Division\n5) Exit");
            System.out.println("\nEnter your choice: ");
```

```java
        ch=sc.nextInt();
    }while(1);


    switch(ch)
    { case 1: ad.sum(a,b);
                break;


        case 2: sub.difference(a,b);
                break;


        case 3: mul.product(a,b);
                break;


        case 4: div.divqn(a,b);
                break;


        case 5: exit(0);
                break;


        default: System.out.println("Wrong option entered!");
    }
}
}
```

<u>PACKAGES:</u>

<u>Add:-</u>

```java
package math;
public class add
{
```

```java
    int res;

    public void sum(int a,int b)

    { res=a+b;

        System.out.println("Sum of: "+a+" and "+b+"= "+res);

    }

}
```

Sub:-

```java
package math;

public class subtract

{

    int res;

    public void difference(int a,int b)

    { res=a-b;

        System.out.println("Difference of: "+a+" and "+b+"= "+res);

    }

}
```

Mul:-

```java
package math;

public class multiply

{

    int res;

    public void product(int a,int b)

    { res=a*b;

        System.out.println("Product of: "+a+" and "+b+"= "+res);

    }

}
```

Div:-

```java
package math;

public class division
{
    int res;
    public void divqn(int a,int b)
    { res=a/b;
        System.out.println("Division of: "+a+" and "+b+"= "+res);
    }
}
```