Thread Synchronization

Write a multithreaded java program to create the multiplication table for for any three given numbers(limit 10) and implement **thread synchronization** while generating the table.

```
package Synch;
import java.util.*;
class Table
{
	void printTable(int n)
	{
		synchronized(this)
		{
			for(int i=1;i<=10;i++)
			{
				System.out.println(+n+"*"+i+"="+(n*i));
				try
				{
					Thread.sleep(400);
				}
				catch(Exception e)
				{
					System.out.println(e);
				}
			}
		}
	}
}

class Mythread1 extends Thread
{
	Table t;
	int n;
	Mythread1(Table t)
	{
		this.t=t;
	}
	public void run()
	{
		t.printTable(n);
	}
}


class Mythread2 extends Thread
{
	Table t;
```

```
	int n;
	Mythread2(Table t)
	{
		this.t=t;
	}
	public void run()
	{
		t.printTable(n);
	}
}

class ThreadSynch
{
	public static void main(String args[])
	{
		Table t = new Table();
		Scanner sc=new Scanner(System.in);
		Mythread1 th1 = new Mythread1(t);
		Mythread2 th2 = new Mythread2(t);

		System.out.println("Enter the table you want to run by
Thread1:");
		th1.n=sc.nextInt();
		System.out.println("Enter the table you want to run by
Thread2:");
		th2.n=sc.nextInt();

		th1.start();
		th2.start();
	}
}
```

Sample Output

```
Enter the table you want to run by Thread1:
10
Enter the table you want to run by Thread2:
20
20*1=20
20*2=40
20*3=60
20*4=80
20*5=100
20*6=120
20*7=140
20*8=160
20*9=180
20*10=200
```

10*1=10
10*2=20
10*3=30
10*4=40
10*5=50
10*6=60
10*7=70
10*8=80
10*9=90
10*10=100