

```
import java.util.Random;
```

```
class Threadp implements Runnable
```

```
{ int e=1,p,num;
```

```
String name;
```

```
Thread t;
```

```
Threadp(String threadName,int n,int pow)
```

```
{ name=threadName; p=pow; num=n;
```

```
t=new Thread(this,name);
```

```
System.out.println("New thread: " + t);
```

```
t.start();
```

```
}
```

```
public void run()
```

```
{ try{
```

```
Thread.sleep(500);
```

```
for( int i=0;i<p;i++)
```

```
{ e=num*e; }
```

```
if(p==2)
```

```
System.out.println("Square: "+e);
```

```
if(p==3)
```

```
System.out.println("Cube: "+e);
```

```
}
```

```
catch (InterruptedException e)
```

```
{ System.out.println(name + "Interrupted"); }
```

```
System.out.println(name + " exiting.");
```

```
}
```

```
}
```

```
class ThreadR implements Runnable
```

```
{ int n;
```

```
String name;
```

```
Thread t;
```

```
ThreadR(String threadName)
```

```
{ name=threadName;
```

```
t=new Thread(this,name);
```

```
System.out.println("New thread: " + t);
```

```
t.start();
```

```
}
```

```
public void run()
```

```
{ Random rand = new Random();
```

```
int num;
```

```
try{
```

```
for(int i=0;i<10;i++)
```

```
{ Thread.sleep(1000);
```

```
num=rand.nextInt(1000);
```

```
Threadp tp;
```

```
System.out.println("Number: " + num);
```

```
if(num%2==0)
```

```
tp=new Threadp("Thread_Square",num,2);
```

```
else
```

```
tp=new Threadp("Thread_Cube",num,3);
```

```
}
```

```
}
```

```
catch (InterruptedException e)
```

```
{ System.out.println(name + "Interrupted"); }
```

```
System.out.println(name + " exiting.");
```

```
}
```

```
}
```

```
class RandomThreads
```

```
{ public static void main(String args[])
```

```
{ ThreadR t=new ThreadR("Thread_Random");
```

```
}
```

```
}
```

```
Command Prompt
D:\Java\jdk1.8.0_261\bin\prog>javac RandomThreads.java
D:\Java\jdk1.8.0_261\bin\prog>java RandomThreads
New thread: Thread[Thread_Random,5,main]
Number: 323
New thread: Thread[Thread_Cube,5,main]
Cube: 33698267
Thread_Cube exiting.
Number: 866
New thread: Thread[Thread_Square,5,main]
Square: 749956
Thread_Square exiting.
Number: 332
New thread: Thread[Thread_Square,5,main]
Square: 118224
Thread_Square exiting.
Number: 988
New thread: Thread[Thread_Square,5,main]
Square: 976144
Thread_Square exiting.
Number: 450
New thread: Thread[Thread_Square,5,main]
Square: 202500
Thread_Square exiting.
Number: 540
New thread: Thread[Thread_Square,5,main]
Square: 291600
Thread_Square exiting.
Number: 38
New thread: Thread[Thread_Square,5,main]
Square: 1444
Thread_Square exiting.
Number: 321
New thread: Thread[Thread_Cube,5,main]
Cube: 33076161
Thread_Cube exiting.
Number: 561
New thread: Thread[Thread_Cube,5,main]
Cube: 176558481
Thread_Cube exiting.
Number: 546
New thread: Thread[Thread_Square,5,main]
Thread_Random exiting.
Square: 298116
Thread_Square exiting.
D:\Java\jdk1.8.0_261\bin\prog>
```