**EXERCIȚIUL 7:**

a)

```
package scanner;
import java.util.Scanner;
public class Exercitiu_7a {
public static void main( String args[]) {
     Scanner hello=new Scanner(System.in);
     int n=hello.nextInt();
     int s=0;
     int p=1;
     for(int i=1; i<=n; i++) {
          s=s+2*(i-1);
          p=p*2*(i-1);
     }
     System.out.println(s);
     System.out.println(p);

hello.close();
}
}
```

```
     package scanner;
import java.util.Scanner;
public class Exercitiu_7a_while {
public static void main(String args []) {
     Scanner hello=new Scanner (System.in);
     int n=hello.nextInt();
int i=1;
int s=0;
int p=1;
while (i<=n)
{
     p=p*(2*i-1);
     s=s+(2*i-1);
     i++;
     }
     System.out.println("s="+s);
     System.out.println("p="+p);


hello.close();
}

}
```

b)

```
package scanner;
import java.util.Scanner;
public class Exercitiu_7b {
public static void main( String args[]) {
     Scanner sky=new Scanner(System.in);
     int n=sky.nextInt();
     int s=0;
     int p=1;
     for(int i=1; i<=n; i++) {
          s=s+2*i;
          p=p*2*i;
     }
     System.out.println(s);
     System.out.println(p);

sky.close();
}
}
```

```
     package scanner;
import java.util.Scanner;
public class Exercitiu_7b_while {
public static void main(String args []) {
     Scanner sky=new Scanner (System.in);
     int n=sky.nextInt();
int i=1;
int s=0;
int p=1;
while (i<=n)
{
     p=p*2*i;
     s=s+2*i;
     i++;
     }
     System.out.println("s="+s);
     System.out.println("p="+p);


sky.close();
}

}
```

c)

```
package scanner;
import java.util.Scanner;
public class Exercitiu_7c {
public static void main( String args[]) {
     Scanner door=new Scanner(System.in);
     int n=door.nextInt();
     int s=0;
     int p=1;
     for(int i=1; i<=n; i++) {
          s=s+3*i;
          p=p*3*i;
     }
     System.out.println(s);
     System.out.println(p);

door.close();
}
}
```

```
     package scanner;
import java.util.Scanner;
public class Exercitiu_7c_while {
public static void main(String args []) {
     Scanner door=new Scanner (System.in);
     int n=door.nextInt();
int i=1;
int s=0;
int p=1;
while (i<=n)
{
     p=p*3*i;
     s=s+3*i;
     i++;
     }
     System.out.println("s="+s);
     System.out.println("p="+p);


door.close();
}

}
```

d)

```java
package scanner;
import java.util.Scanner;
public class Exercitiu_7c {
public static void main( String args[]) {
     Scanner mint=new Scanner(System.in);
     int n=mint.nextInt();
     int s=0;
     int p=1;
     for(int i=1; i<=n; i++) {
          s=s+4*i;
          p=p*4*i;
     }
     System.out.println(s);
     System.out.println(p);

mint.close();
}
}
```

```java
     package scanner;
import java.util.Scanner;
public class Exercitiu_7c_while {
public static void main(String args []) {
     Scanner mint=new Scanner (System.in);
     int n=mint.nextInt();
int i=1;
int s=0;
int p=1;
while (i<=n)
{
     p=p*4*i;
     s=s+4*i;
     i++;
     }
     System.out.println("s="+s);
     System.out.println("p="+p);


mint.close();
}

}
```

**EXERCIȚIUL 8:**

```
package scanner;
import java.util.Scanner;
public class Exercitiu_8 {
public static void main(String args[]) {
          Scanner hello=new Scanner(System.in);
          int n=hello.nextInt();
          double s=0;
          for(int i=1; i<=n;i++) {
               if(i%2==0) {
                    s=s-1d/i;
               }else {

                    s=s+1d/i;
               }
          }
          System.out.println(s);
hello.close();

           }

}

package scanner;
import java.util.Scanner;
public class Exercitiu_8_while {
public static void main(String args[]) {
          Scanner hello=new Scanner(System.in);
          int n=hello.nextInt();
          double s=0;
          int i =1;
          while(i<=n) {
               if(i%2==0) {
                    s=s-1d/i;
               i++;
          }else {
               s=s+1d/i;
i++;
          }
     System.out.println(s);
     hello.close();
          }
}
}
```

**Problemă spre rezolvare**:

De la tastatură se introduce un număr natural n. Alcătuiți un program Java ce va calcula suma și produsul primilor n termeni:

```
package scanner;
import java.util.Scanner;
public class Problema_Doua {
public static void main(String args[]) {
          Scanner hello=new Scanner(System.in);
          int n=hello.nextInt();
          double s=0;
          double p=1;
          int i=1;
          while(i<=n) {
          s=s+i/(i+1d);
          p=p*i/(i+1d);
          i++;
          }
          System.out.println(s);
          System.out.println(p);
          hello.close();
}
}
```