

```
import java.util.*;  
class WrongAge extends Exception
```

```
{ int x;  
  WrongAge (int fage)  
  { this.x = fage;  
  }  
  public String toString()  
  { return "Wrong age! Age can't be negative";  
  }  
}
```

```
class SonAgeException extends Exception
```

```
{ int f, s;  
  SonAgeException (int fage, int sage)  
  { this.f = fage;  
    this.s = sage;  
  }  
  public String toString()  
  {  
    if (f == s)  
      return "Wrong age! A father's age can't be equal to  
             son's age";  
    if (s < 0)  
      return "Wrong age! Son's age can't be less than 0";  
    else  
      return "Wrong age! Son's age can't be greater than  
             father's age";  
  }  
}
```

```
class Father
```

```
{ int fage;  
  Scanner sc = new Scanner (System.in);  
  Father()  
  {  
    System.out.println ("Enter father's age");  
    fage = sc.nextInt();  
  }  
  void exc11() throws WrongAge  
  {  
    if (fage < 0)  
      throw new WrongAge (fage);  
  }  
}
```

```
class Son extends Father
```

```
{
```

```
    int sage;
```

```
    Scanner sc = new Scanner(System.in);
```

```
    Son()
```

```
{
```

```
    super();
```

```
    System.out.println("Enter son's age");
```

```
    sage = sc.nextInt();
```

```
}
```

```
void exc2() throws SonAgeException
```

```
{
```

```
    if (sage < 0 || sage > 100) {
```

```
        throw new SonAgeException(fage, sage);
```

```
    }
```

```
}
```

```
class Lab8
```

```
{
```

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

```
{
```

```
        Son s = new Son();
```

```
        try {
```

```
            s.exc1();
```

```
        }
```

```
        catch (WrongAge e)
```

```
{
```

```
            System.out.println(e);
```

```
        }
```

```
        try {
```

```
            s.exc2();
```

```
        }
```

```
        catch (SonAgeException e)
```

```
{
```

```
            System.out.println(e);
```

```
        }
```

```
}
```