Q1. Write a program that demonstrates handling of exceptions in inheritance tree. Create a

base class called “Father” and derived class called “Son” which extends the base class.

In Father class, implement a constructor which takes the age and throws the exception

WrongAge( ) when the input age<0. In Son class, implement a constructor that cases

both father and son’s age and throws an exception if son’s age is >=father’s age.

import java.util.Scanner;

class Father extends Exception

{

int fage;

Father(int a)

{

fage=a;

}

public String toString()

{

return "Wrong age";

}

}

class Son extends Father

{

int sage;

Son(int a,int b)

{

super(a);

sage=b;

}

public String toString()

{

return "Son's age is greater than or equal to Father's age";

}

}

class age

{

static int a,b;

static void fatherage(int a) throws Father

{

System.out.println("Called fatherage("+a+")");

if(a<0)

throw new Father(a);

System.out.println("Normal exit:Father's age:"+a);

}

static void sonage(int a,int b) throws Son

{

System.out.println("Called sonage("+b+")");

if(b>=a)

throw new Son(a,b);

System.out.println("Normal exit:Son's age:"+b);

}

public static void main(String args[])

{

Scanner age=new Scanner(System.in);

System.out.println("Enter Father's age:");

a=age.nextInt();

System.out.println("Enter Son's age:");

b=age.nextInt();

try

{

fatherage(a);

}

catch(Father e)

{

System.out.println(e);

}

try

{

sonage(a,b);

}

catch(Son e)

{

System.out.println(e);

}

}

}

