

Logic Specification Template

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Program # 8

Class Name CalculadorP

Design
References

Method Name calculaTDist

Parameters

dXi representa el valor <code>double</code>

```
double dT;  
dT = Math.pow((1 + (dXi*dXi)/iDof),dPotenciaDof)*dGammaConst;  
return dT;  
  
  
  
  
  
  
  
  

```

Method Name calculaP

Parameters

```
double dW;  
int cont = 1;  
dW = (double)(dX/iNum_seg);  
dSumP = dW/3* calculaTDist(0);  
for(double dXi = dW; dXi < dX; dXi+=dW){  
    if((cont % 2)==0)  
        dSumP+=dW/3*4*calculaTDist(dXi);  
    else{  
        dSumP+=dW/3*2*calculaTDist(dXi);  
    }  
    cont++;  
}  
dSumP+=dW/3*calculaTDist(dX);  
return dSumP;
```

Class Name CalculadorX

**Design
References**

Method Name calculaX

Parameters

dP es el <code>double</code>

iDof es el <code>int</code>

```
if(dP != 0){
dX1 = 0;
boolean sumando = true;
ceCalcE = new CalculadorE(dX1,iDof);
dX2 = dX1 + dD;
ceCalcE.setX(dX2);
dP2 = ceCalcE.getP();
while(Math.abs(dX1-dX2) > dE){
dX1 = dX2;
if((dP2 > dP && sumando) || (dP2 < dP && !sumando)){
dD = dD/-2.0;
sumando = !sumando;
}
dX2 = dX1 + dD;
ceCalcE.setX(dX2);
dP2 = ceCalcE.getP();
}
dX = dX2;
}
else{
dX = 0;
}
}
```

Method Name print()

Parameters

```
System.out.println("p   = "+ String.format("%.5f", dP));
System.out.println("dof = "+ iDof);
System.out.println("x   = "+String.format("%.5f", dX));
```

Class Name CalculadorE

**Design
References**

Method Name setX

Parameters

```
public void setX(double dX){  
    this.dX = dX;  
    calculaP();  
}
```