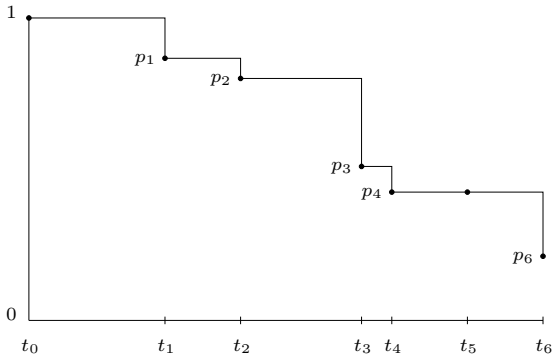


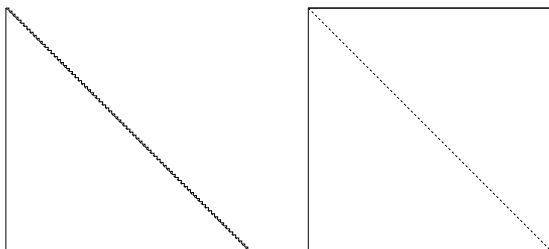
**Nota 5.3**



**Nota 5.4**

```
def kaplan (completi, incompleti, tempi, epsilon=0.0002, crescente=0):
    completi=list(map(lambda x: (x,1), completi))
    incompleti=list(map(lambda x: (x,0), incompleti))
    tempi=list(map(lambda x: (x+epsilon,-1), tempi))
    tutti=tempi+completi+incompleti; tutti.sort()
    tutti=list(map(lambda x: x[1],tutti))
    v=[len(completi)+len(incompleti)]; u=[v[0]]
    ultimimorti=0; ultimicensurati=0; i=0; t=0
    for delta in tutti[1:]:
        if delta<0:
            t+=1
            u.append(v[i]-ultimimorti); ultimimorti=0; i+=1
            vi=u[i]-ultimicensurati
            v.append(vi); ultimicensurati=0
            if not vi: break
        elif delta==0: ultimicensurati+=1
        else: ultimimorti+=1
    q=map(lambda i: u[i]/float(v[i-1]),range(1,t+1))
    p=[1]
    for i,qi in enumerate(q): p.append(qi*p[i])
    if not crescente: return p
    return [1-pi for pi in p]
```

**Oss. 5.6**



**Nota 5.8**

