The variance of a Poisson distribution is equal to its mean. The data set has size 414, so the significance that the mean and variance are equal, or even similar, is essentially zero, given that their estimates are different by a factor of more than two.

ii)

```
load(injuries)
 » injuries[414]   (M246 p.000)
mean(injuries)
        0.4831
vare(injuries)
        1.011
freqs(injuries)
        [ 0 - 1 )          296
        [ 1 - 2 )           74
        [ 2 - 3 )           26
        [ 3 - 4 )            8
        [ 4 - 5 )            4
        [ 5 - 6 )            4
        [ 6 - 7 )            1
        [ 7 - 8 )            0
        [ 8 - 9 )            1
v0=(296,74,26,8,4,4,1,0,1)
plist(0.4831)
```

x	P(X = x)	P(X ≤ x)	P(X ≥ x)
0	0.6169	0.6169	1
1	0.298	0.9149	0.3831
2	0.07198	0.9869	0.08512
3	0.01159	0.9985	0.01314
4	0.0014	0.9999	0.001547
5	0.0001353	1	0.000147
6	1.089e-005	1	1.169e-005
....	.....	.....	.....

```
vE=414*(0.6169,0.298,0.07198,0.01159,0.0014,0.0001353,1.089e-005)
vE
 255.4      123.4      29.8      4.798      0.5796      0.05601      0.00450
```

The data for the set looks plausibly poisson, though the difference between the respective frequencies are larger, and this will reduce the quality of the fit for some frequencies *

* Which ones? 4/4