

## Fitting Poisson Distribution

① fit the following into poisson

$x:$	0	1	2	3	4
freq:	123	59	14	3	1

→ Fitting a distribution means finding expected frequencies of  $x$

$$\text{Mean} = \frac{\sum f_i x_i}{\sum f_i} = \frac{100}{200} = 0.5$$

$$\therefore \lambda = 0.5$$

$$P(X=x) = \frac{e^{-\lambda} \lambda^x}{x!}$$

$$P(X=0) = \frac{e^{-\lambda} \lambda^0}{0!} = \frac{e^{-0.5}}{1} = 0.606$$

