```
Python 3.11.13 | packaged by conda-forge | (main, Jun  4 2025, 14:52:34)
[Clang 18.1.8 ]
Type "copyright", "credits" or "license" for more information.

IPython 8.37.0 -- An enhanced Interactive Python. Type '?' for help.

In [1]: %runfile '/Users/catacisneros/Library/CloudStorage/OneDrive-
Personal/FIU/Fall 2025/Intermediate Physics Lab/SamplePrograms2/
untitled5.py' --wdir
hy is:
 [ 8 16 22 17 11  6  4  3  1  0]
dy is:
 [2.82842712 4.         4.69041576 4.12310563 3.31662479 2.44948974
 2.         1.73205081 1.         0.        ]
gen_fit kwargs =  {}
gen_fit.fit kwargs =  {}
Calculate numerical parameter derivatives with diff_step = 0.001
------------------------------------------------------------------------
fit results :
------------------------------------------------------------------------
chisquare =  13.501798022083067
red. chisquare =  1.6877247527603834
parameters:
parameter  0  :  mu = np.float64(3.524076582318037) +/-
np.float64(0.09837057896347122)
parameter  1  :  norm = np.float64(91.04106302717189) +/-
np.float64(3.3853510194359666)
```

Important

Figures are displayed in the Plots pane by default. To make them also appear inline in the console, you need to uncheck "Mute inline plotting" under the options menu of Plots.

```
 Poisson fit completed
gen_fit kwargs =  {}
gen_fit.fit kwargs =  {}
Calculate numerical parameter derivatives with diff_step = 0.001
------------------------------------------------------------------------
fit results :
------------------------------------------------------------------------
chisquare =  37.07868301784079
red. chisquare =  0.6505032108393121
parameters:
parameter  0  :  p1 = np.float64(1.1145767857481084) +/-
np.float64(0.28736004648365304)
parameter  1  :  p2 = np.float64(31.441298847697603) +/-
np.float64(3.823989349585074)
parameter  2  :  p3 = np.float64(13.538174741487351) +/-
```

```
np.float64(4.009566818569393)
gen_fit.fit kwargs =  {}
Calculate numerical parameter derivatives with diff_step = 0.001
------------------------------------------------------------------------
fit results :
------------------------------------------------------------------------
chisquare =  37.0769009812381
red. chisquare =  0.6504719470392648
parameters:
parameter  0  :  p1 = np.float64(1.108311408809262) +/-
np.float64(0.28632522762532225)
parameter  1  :  p2 = np.float64(31.3247842979659) +/-
np.float64(3.8695787477841117)
parameter  2  :  p3 = np.float64(13.705217356433284) +/-
np.float64(4.088348489135589)
Gaussian fit results:
Amplitude (p1): 1.108
Mean (p2): 31.325
Standard deviation (p3): 13.705
Chi-squared: 37.077
Gaussian fit completed!
Final parameters - Amplitude: 1.11, Mean: 31.32, Std Dev: 13.71

In [2]:
```