

CHAPTER 23 - THE MEAN AND STANDARD DEVIATION OF A BINOMIAL DISTRIBUTION

TI-84 Plus

Enter the values 0, 1, 2, ..., 30 into **List 1**. Move the cursor to the heading of **List 2**, press **2nd** **VARS** (**DISTR**), then select **A:binompdf(**. Press 30 **,** 0.25 **,** **2nd** **1** (**L1**) **)**, then press **ENTER**. This calculates $P(X = x)$ for every value of x from 0 to 30, where $X \sim B(30, 0.25)$.

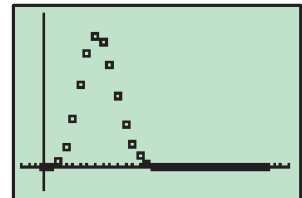
L1	L2	L3	Z
0	.000179	-----	
1	.000863		
2	.02685		
3	.06042		
4	.10473		
5	.14546		
L2(0)=1.785820901...			

To draw a scatter diagram of the data, press **2nd** **Y=** (**STAT PLOT**) **1**, and set up **Plot 1** as shown.

Press **ZOOM** **9:ZoomStat** to draw the scatter diagram.

```

Plot1 Plot2 Plot3
On Off
Type: [ ] [ ] [ ]
Xlist:L1
Ylist:L2
Mark: [ ] + .
  
```



To calculate the descriptive statistics, press **STAT** **1:1-Var Stats** **2nd** **1** (**L1**) **,** **2nd** **2** (**L2**) **ENTER**.

So, $\mu = 7.5$ and $\sigma \approx 2.3717$.

```

1-Var Stats
x̄=7.5
Σx=7.5
Σx²=61.875
Sx=
σx=2.371708245
n=1
  
```