

The Binomial Distribution

Using Ti-84 plus

Find the probability for the Binomial variable:

$n = 6$ $x = 4$ $p = 0.05$

A: $\text{binompdf}(n, p, x)$

Press **2ND****VARS** (DISTR) then **▼** to $\text{A:binompdf}(\quad)$ press **ENTER**

```
0:1:1: DRAW
1:normalpdf(
2:normalcdf(
3:invNorm(
4:invT(
5:tPdf(
6:tcdf(
7:↓X²Pdf(
```

```
0:1:1: DRAW
6:tcdf(
7:X²Pdf(
8:X²cdf(
9:Fpdf(
0:Fcdf(
1:binomPdf(
B:binomcdf(
```

Press: **6** , **.05** , **4**) **ENTER**

```
binomPdf(6,.05,4
)■
```

```
binomPdf(6,.05,4
)
8.4609375E-5
■
```

$\text{A:binompdf}(6, .05, 4) = 8.460937 \times 10^{-5} = 0.00008460937$

Find the probability for several values a Binomial variable:

$n = 6$ $x = 1, 2, 3$, $p = 0.05$

A: $\text{binompdf}(n, p, \{x\})$

Press **2ND****VARS** (DISTR) then **▼** to $\text{A:binompdf}(\quad)$ press **ENTER**

```
0:1:1: DRAW
1:normalpdf(
2:normalcdf(
3:invNorm(
4:invT(
5:tPdf(
6:tcdf(
7:↓X²Pdf(
```

```
0:1:1: DRAW
6:tcdf(
7:X²Pdf(
8:X²cdf(
9:Fpdf(
0:Fcdf(
1:binomPdf(
B:binomcdf(
```

Pres: **6** , **.05** , **2ND** (**1** , **2** , **3** **2ND**)) **ENTER**

```
binomPdf(6,.05,{
1,2,3})■
```

$\text{A:binompdf}(6, .05, \{1, 2, 3\}) =$ see below

```
binomPdf(6,.05,{
1,2,3})
(.2321342813 .0...
```

```
binomPdf(6,.05,{
1,2,3})
...3 .0305439844 ...
```

```
binomPdf(6,.05,{
1,2,3})
...44 .0021434375)
```

Use arrow key to see
all numbers inside { }.