

```
set obs 10000
```

```
gen binomial5_5 = rbinomial(5,.5)
```

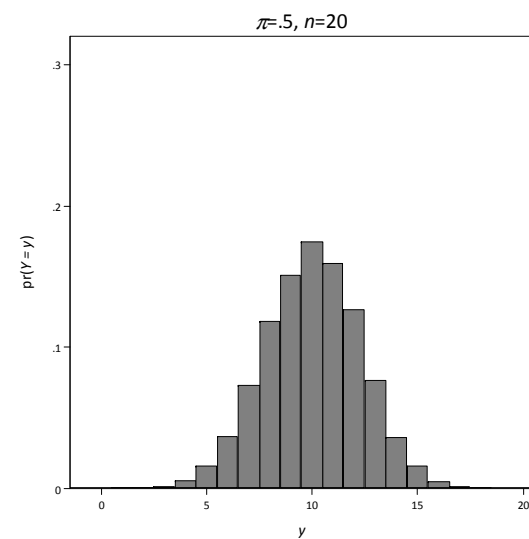
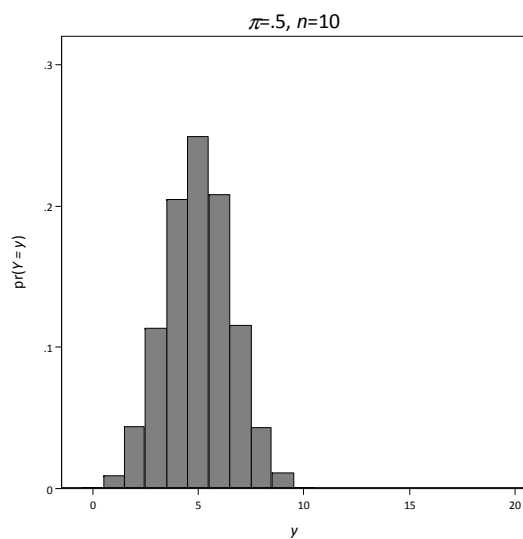
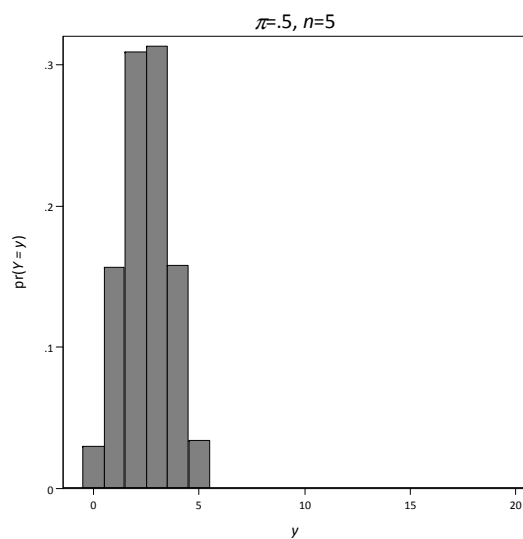
```
gen binomial10_5 = rbinomial(10,.5)
```

```
gen binomial20_5 = rbinomial(20,.5)
```

```
hist binomial5_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=5") xsize(4) ysize(4)
```

```
hist binomial10_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=10") xsize(4) ysize(4)
```

```
hist binomial20_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=20") xsize(4) ysize(4)
```



SIMULATIONS OF THE POISSON DISTRIBUTION

```
gen poisson3 = rpoisson(3)
```

```
gen poisson5 = rpoisson(5)
```

```
gen poisson10 = rpoisson(10)
```

```
hist poisson3, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}=3}) xsize(4) ysize(4)
```

```
hist poisson5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}=5}) xsize(4) ysize(4)
```

```
hist poisson10, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}=10}) xsize(4) ysize(4)
```

