Categorical

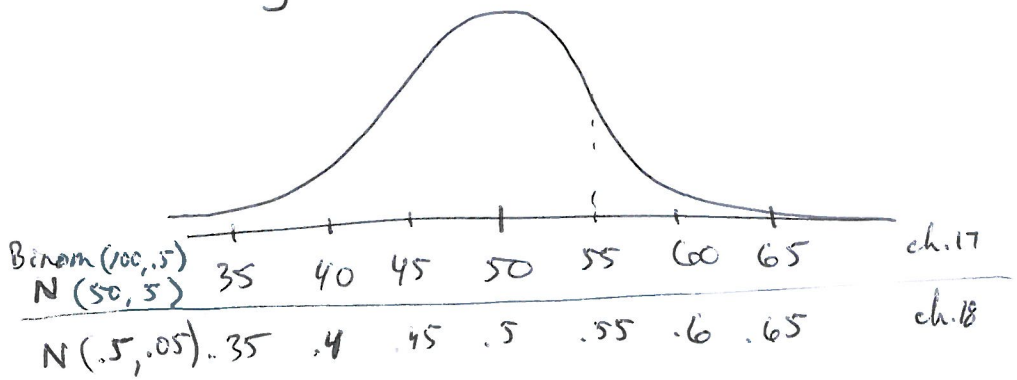
(ch 17) counts — Binom (n, p)

$\mu = np$ $\quad \sigma = \sqrt{npq}$

(ch 18) proportion — $\div n$ $\quad \div n$

$\mu_{(\hat{p})} = p$ $\quad \sigma_{(\hat{p})} = \sqrt{\frac{pq}{n}}$

Flipping 100 coins



Quantitative

(ch 16) sum — outcome probability

$\mu_{x_1+x_2+\ldots+x_n} = \mu_{x_1} + \mu_{x_2} + \ldots + \mu_{x_n}$

$= n \cdot \mu_x$

(ch 18) average — $\div n$

$\sigma_{x_1+x_2+\ldots+x_n} = \sqrt{\sigma_{x_1}^2 + \sigma_{x_2}^2 + \ldots + \sigma_{x_n}^2}$

$= \sqrt{n\,\sigma_x^2}$

$= \sigma_x \sqrt{n}$ — $\div n$

$\mu_{\bar{x}} = \mu$ $\quad \sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}}$

roll 10 dice