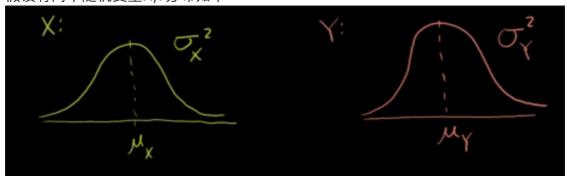
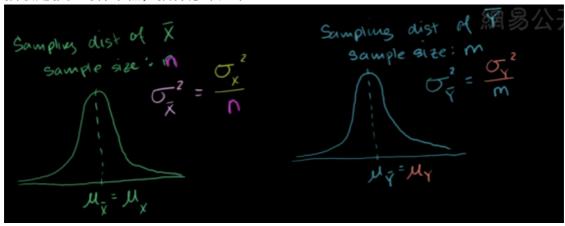
假设有两个随机变量X,Y分布如下:



抽取足够多的样本值,抽样分布如下:



我们需要定义一个新的随机变量Z,它等于X的样本均值减去Y的样本均值:

$$Z=ar{X}-ar{Y}$$

它的均值:

$$\mu_{\scriptscriptstyle ar{Z}} = \mu_{\scriptscriptstyle ar{X} - ar{Y}} = \mu_{\scriptscriptstyle ar{X}} - \mu_{\scriptscriptstyle ar{Y}}$$

它的方差:

$$\sigma_{\scriptscriptstyle ar{Z}}^2 = \sigma_{\scriptscriptstyle ar{X} - ar{Y}}^2 = \sigma_{\scriptscriptstyle ar{X}}^2 + \sigma_{\scriptscriptstyle ar{Y}}^2$$

得到分布如下:

