B.74002 江[illegible]

a. 常態分佈 $E(z_0+z_1)=0$, $E(z_0+z_1-\mu)^2=1+1=2$

b. 卡方分佈 $u_1=z^2=\chi^2(df=1)$

c. $u_2=z_1^2+z_2^2$ $\chi^2(df=2)$

d. 相互分佈

e

f

(2) a $P(z_0+z_1\le 1)=0.6914$, (1-st, norm, st (1,0,2))

b $P(z_0^2\le 1)=0.8413$, (1-st. norm, st (1,0,1))

c $P(z_1^2+z_2^2\le 1)=0.6914$, (1-st, norm. st (1,0,2))

d $P(\frac{z_0}{z_1}\le 1)$

3. (1) $\mu_A=65$, $\frac{\sigma_A^2}{n}=\frac{3^2}{25}=\frac{9}{25}$

$z=\frac{\bar{x}_A-65}{\frac{3}{5}}$

$P(z\le -1.67)\approx 0.0476\approx 4.7\%$