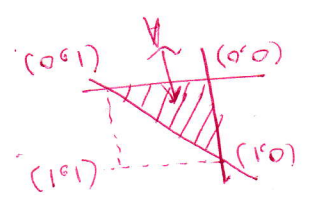


Header: Take  $K=10$ , seed = roll number.

Footer:  $\sum_{n=1}^{\infty} P\{X_1 \notin B, X_2 \in B, \dots, X_{n-1} \in B, X_n \in A\}$

Header:  $= \sum_{\alpha} P(X_n \in B \cap A, X_1 \notin B, \dots, X_{n-1} \notin B)$

Sampling from bivariate distribution



Header: 1) Draw samples  $x_0, y_0$  iid from  $U(0,1)$

Header: Acceptance-Rejection (AR) Algorithm

Footer: If  $u \leq \frac{f(x)}{g(x)}$ , accept  $x$ .  
 1) use choose  $c$  such that  $c = \sup_x \frac{f(x)}{g(x)} > \dots$ , reject and continue.

Header: 1) use choose  $c$  such that  $c = \sup_x \frac{f(x)}{g(x)}$

Header: 16) Algorithm to Box-Muller Algorithm.

1) Take  $x$  from  $d(x) = \sqrt{2/\pi} e^{-x^2/2}, x > 0$ .

Footer: Take  $g(x) = G(\alpha/2, [p])$

$c = \sup_x \frac{f(x)}{g(x)}$

Header: 17)  $\left\{ \begin{aligned} &e^{-\alpha/2} x^{p-[p]+1} - 1 \\ &\frac{[p] - (\alpha/2)^{p-[p]+1}}{[p] - [p] + 1} \end{aligned} \right\} x^k$