**AR Algorithm:**

1.     Let X be a sample from the r.v. whose density function is g(x)

2.     Generate a U(0,1) sample, U, and let $Y = Uh(X)$

3.     If $Y \le f(X)$, i.e.if $U \le \frac{f(X)}{h(X)} = \frac{f(X)}{cg(X)}$, where $U \sim (0,1)$, then **accept** X; otherwise **reject** it and start again.

It's a "dart throwing" exercise (Monte Carlo simulation).

By construction, the samples X and Y define a point that lies under h(X); if (X,Y) lies under f(X) as well we accept X.