Simulation

Create the Random Variates

```
x = 2*rand(1000000, 1)-1
y = 2*rand(1000000, 1)-1
z = rand(1000000, 1)
w = x*y + z
v = x*y
```

```
figure(figsize=(6, 3))
hist(w, 51, (-1, 2), normed=True, cumulative=False);
xlabel(r'$w$')
ylabel(r'Probability Density $f_w(w)$')
title(r'Probability Density of $w = xy + z$')
wr = arange(-1.2, 2.2, .001)
plot(wr, pdf_proj1_w(wr), 'r')
grid();
```