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();
```