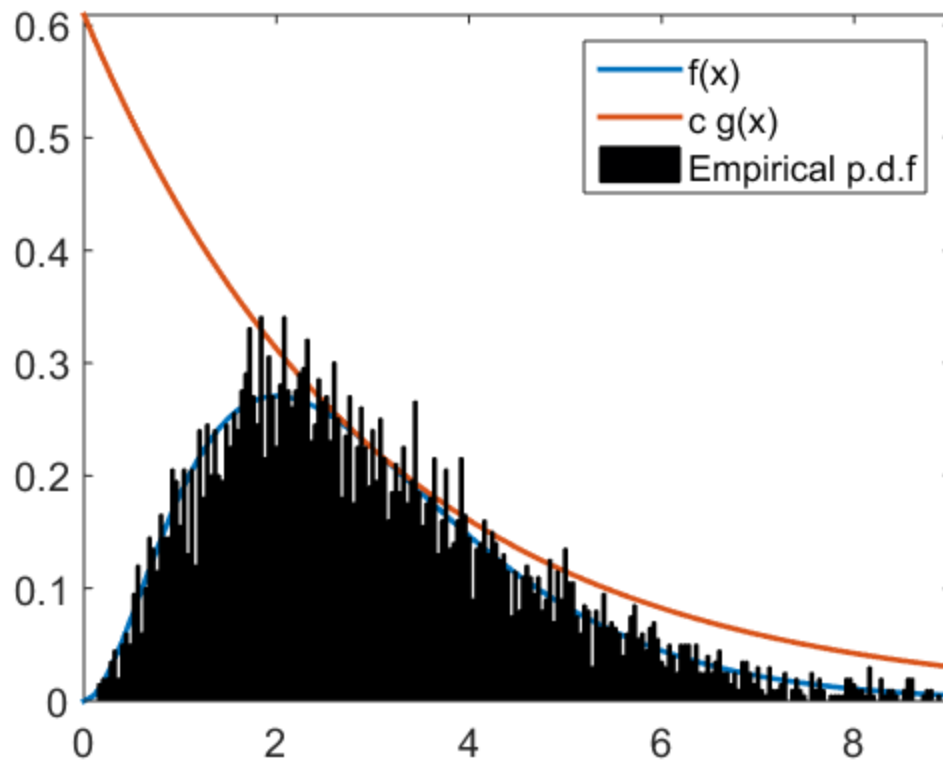


```

c = (27/2)*exp(-2);
x = 0:0.1:9;
f = 0.5*(x.^2).*exp(-x);
% the true pdf
plot(x,f, 'Linewidth',2);
hold on;
plot(x, c*(1/3)*exp(-x/3), 'Linewidth',2);
% the SCALED exponential pdf
sample = ARM(5000); % generate a sample of 5000 random numbers with
density
% f using the acceptance rejection method
[f,x] = hist(sample,0.04:0.04:9);
bar(x,f/trapz(x,f)), colormap(bone);
% plot the empirical distribution function of the sample
legend('f(x)', 'c g(x)', 'Empirical p.d.f');
set(gca, 'FontSize',15)
axis tight;

```



*Published with MATLAB® R2015a*