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function [avg,mcm,y,z]=MC2norm(m, sig1, d, sig2, step2)
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%function of calculating mean of distribution of product of two normal  
%density with mean m and d, variance sig1^2 and sig2^2.  
y=normrnd(d,sig2,1, step2);  
z=1/sqrt(2*pi*sig1^2)*exp(-1/2/(sig1^2).*((y-m).^2));  
mcm=y.*(1/sqrt(2*pi*sig1^2)*exp(-1/2/(sig1^2).*((y-m).^2)));  
%subplot(221);hist(y,200);title('y');  
%subplot(222);hist(z,200);title('z');  
%subplot(223);hist(mcm,200);title('mcm');  
avg=mean(mcm)/mean(z);
```