

```
%  
% Calculates the normal distribution.  
%  
% z=phi(x)  
%  
% gives z=int((1/sqrt(2*pi))*exp(-t^2/2),t=-infinity..x)  
%  
function z=phi(x)  
if (x >= 0)  
z=.5+.5*erf(x/sqrt(2));  
else  
z=1-phi(-x);  
end
```