```
function [n] = Sample_Time(scale, val)
    s = abs(scale - val);
    n = find(s == min(s));
end

clear all;
w = -pi:0.01:pi;
w_long = -2*pi:0.01:2*pi;

dftu = 1./(1 - exp(-1i.*w));

n = Sample_Time(w, 0);
dftu(n) = dftu(n) + 0.5;

dftc = zeros(1, size(w, 2));
n1 = Sample_Time(w, -pi/3);
nr = Sample_Time(w, pi/3);
dftc(n1) = dftc(n1) + 0.5;
dftc(nr) = dftc(nr) + 0.5;

dftcu = conv(dftc, dftu);

figure;
subplot(2, 2, 1);
plot(w, abs(dftu));
xlabel('w');
ylabel('|X(w)|');
title('x[n] = u[n]');

subplot(2, 2, 3);
plot(w, angle(dftu));
xlabel('w');
ylabel('<X(w)');

subplot(2, 2, 2);
plot(w_long, abs(dftcu));
xlabel('w');
ylabel('|X(w)|');
title('x[n] = cos(n * pi/3)u[n]');

subplot(2, 2, 4);
plot(w_long, angle(dftcu));
xlabel('w');
ylabel('<X(w)');
```