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//------------------------------------------------------------------------
//
// Licensing:
//
// This code is distributed under the GNU LGPL license.
//
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//
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//
//------------------------------------------------------------------------


::::::::::::::::
diric.m
::::::::::::::::
function x = diric(x, N)
  nomi = sin(N*x/2);
  denomi = N * sin(x/2);

  I = find(abs(denomi) < 100 *eps);

  nomi(I) = cos(N*x(I)/2);
  denomi(I) = cos(x(I)/2);

  x = nomi ./ denomi;



::::::::::::::::
drcl.m
::::::::::::::::
function x = drcl(t, N)
  nomi = sin(N*pi*t);
  denomi = N * sin(pi*t);

  I = find(abs(denomi) < 100 *eps);

  nomi(I) = cos(N*pi*t(I));
  denomi(I) = cos(pi*t(I));

  x = nomi ./ denomi;



::::::::::::::::
drclplot.gnuplot
::::::::::::::::
t = -20:0.01:20;
y1 = 7/16*drcl(t/16, 7);
k = -20:1:20;
y2 = 7/16*drcl(k/16, 7);

A = [t' y1' abs(y1)' arg(y1)'];
save 'A.dat' A;

B = [k' y2' abs(y2)' arg(y2)'];
save 'B.dat' B;



set term emf

set output 'mag.emf'
unset key
plot 'A.dat' using 1:3 with lines lt rgb "gray" , 'B.dat' using 1:3 with impulse lt rgb "blue" lw 2
```

```
set output 'arg.emf'
unset key
plot 'A.dat' using 1:4 with lines lt rgb "gray" , 'B.dat' using 1:4 with impulse lt rgb "blue" lw 2


set output 'magarg.emf'
unset key
plot 'A.dat' using 1:2 with lines lt rgb "green" , 'A.dat' using 1:4 with lines lt rgb "blue"



w = -3*pi:0.01:3*pi;
y1 = 7*diric(w, 7);

C = [w' y1' abs(y1)' arg(y1)'];
save 'C.dat' C;


set term 'emf'

set output 'mag2.emf'
unset key
plot 'C.dat' using 1:3 with lines

set output 'arg2.emf'
unset key
plot 'C.dat' using 1:4 with lines


set output 'res2.emf'
unset key
plot 'C.dat' using 1:2 with lines
```