

```

figure(1);
t=0:0.1:10;
A=1;
om1=500;
s1=A*(1+sin(om1*t));
subplot(2,2,1);
plot(t,s1,'r')
c1=fft(s1);
subplot(2,2,2);
plot(t,c1)
s2=sin(om1*t);
subplot(2,2,3);
plot(t,s2,'r')
c2=fft(s2);
subplot(2,2,4);
plot(t,c2)

```

s1	c1
s2	c2

[abs](#)

Absolute value and complex magnitude

[angle](#)

Phase angle

[cplxpair](#)

Sort complex numbers into complex conjugate pairs

[fft](#)

Discrete Fourier transform

[fft2](#)

2-D discrete Fourier transform

[fftn](#)

N-D discrete Fourier transform

[fftshift](#)

Shift zero-frequency component to center of spectrum

[fftw](#)

Interface to FFTW library run-time algorithm tuning control

[ifft](#)

Inverse discrete Fourier transform

[ifft2](#)

2-D inverse discrete Fourier transform

[ifftn](#)

N-D inverse discrete Fourier transform

[ifftshift](#)

Inverse FFT shift

[nextpow2](#)

Next higher power of 2

[unwrap](#)

Correct phase angles to produce smoother phase plots