

```
function y =discft(k) %analytical solution for fourier transform of funk for j=1:length(k)
y(j)=sin(4*pi*k(j))/(pi*k(j))+exp(-2*pi*1i*k(j))*sin(pi*k(j))/(pi*k(j)); end for j=1:length(k)
y(j)=4*sinc(4*k(j))+exp(-2*pi*1i*k(j))
```