

## F8FTSINC183S

Fourier transform of  $\text{sinc}/z$  function of width 0 to d.  
The FT (inverse) of the FT is also shown

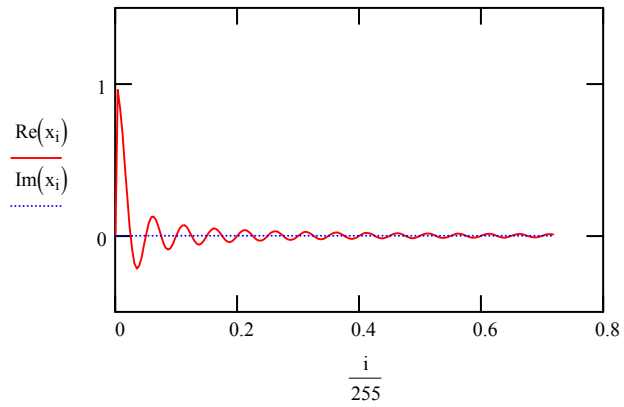
Original function

$$i := 0..183 \quad x_i := \frac{\sin\left(2 \cdot \pi \cdot d \cdot \frac{i}{255}\right)}{2 \cdot \pi \cdot d \cdot \frac{i}{255}}$$

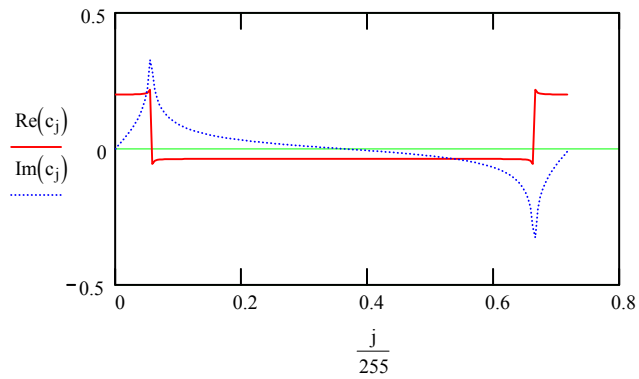
Global definition  
of d  $d \equiv 20$

Fourier transform

$c := \text{cfft}(x)$   
 $N := \text{last}(c)$   $N = 183$   
 $j := 0..N$



The first zero of the FT  
is at  $1/2d$



Fourier transform (inverse) of Fourier transform

$z := \text{icfft}(c)$   $N2 := \text{last}(z)$   $N2 = 183$

$k := 0..N2$   
 $\frac{1}{2 \cdot d} = 0.025$

