$$F(f(t)) = \int_{-\infty}^{+\infty} A\Pi(t/w)e^{-j2\pi\mu t} dt = F(\mu)$$

$$= \int_{-\infty}^{w/2} Ae^{-j2\pi\mu t} dt$$

$-\int_{-w/2}^{Ae^{-s}} Ae^{-s} dt$				
$=A\int_{-w/2}^{w/2}e^{-j2\pi\mu t}dt=$	$=\frac{-A}{j2\pi\mu}\left[e^{-j2\pi\mu t}\right]^{\nu}$	$\frac{w/2}{w/2} = \frac{A}{j2\pi\mu}$	$e^{j\pi\mu w}$ - $e^{-j\pi\mu w}$	
Λ 1 [1 1		$\sin(\pi u u)$	

$$= A \int_{-w/2}^{e^{-j2\pi\mu t}} dt = \frac{1}{j2\pi\mu} \left[e^{-j2\pi\mu t} \right]_{-w/2}^{w/2} = \frac{1}{j2\pi\mu} \left[e^{j\pi\mu w} - e^{-j\pi\mu w} \right]$$

$$= \frac{A}{\pi\mu} \cdot \frac{1}{2j} \left[e^{j\pi\mu w} - e^{-j\pi\mu w} \right] = \frac{A}{\pi\mu} \cdot \sin(\pi\mu w) = Aw \cdot \frac{\sin(\pi\mu w)}{\pi\mu w}$$