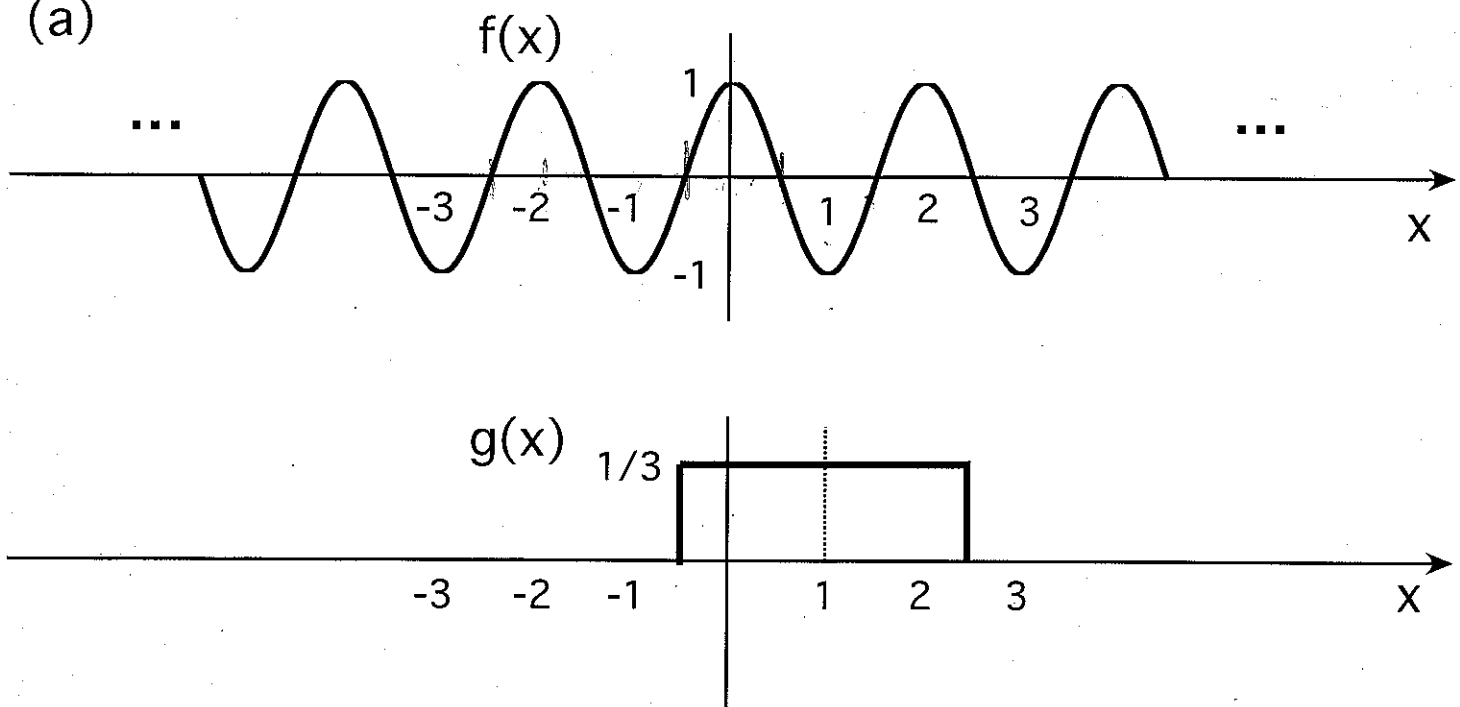
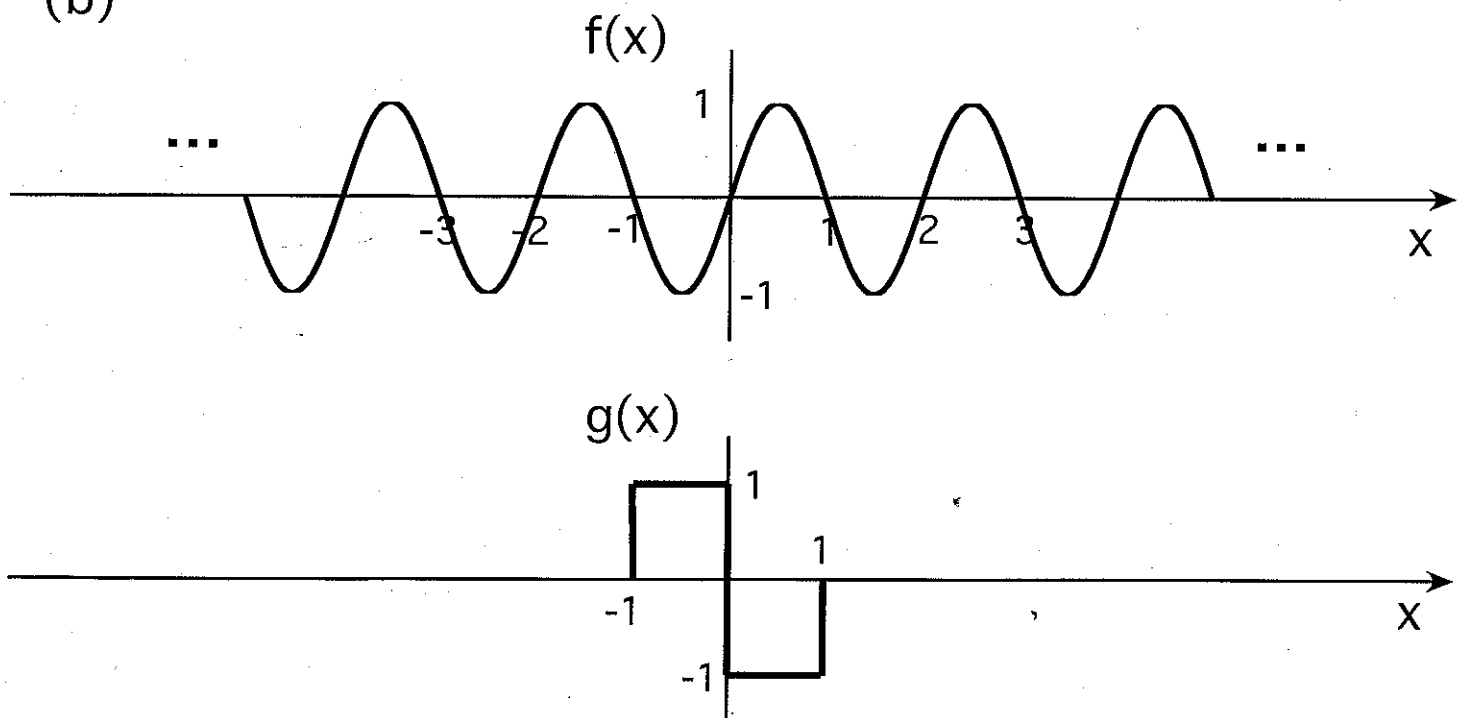


Sketch the following convolutions:  $f(x) * g(x)$

(a)



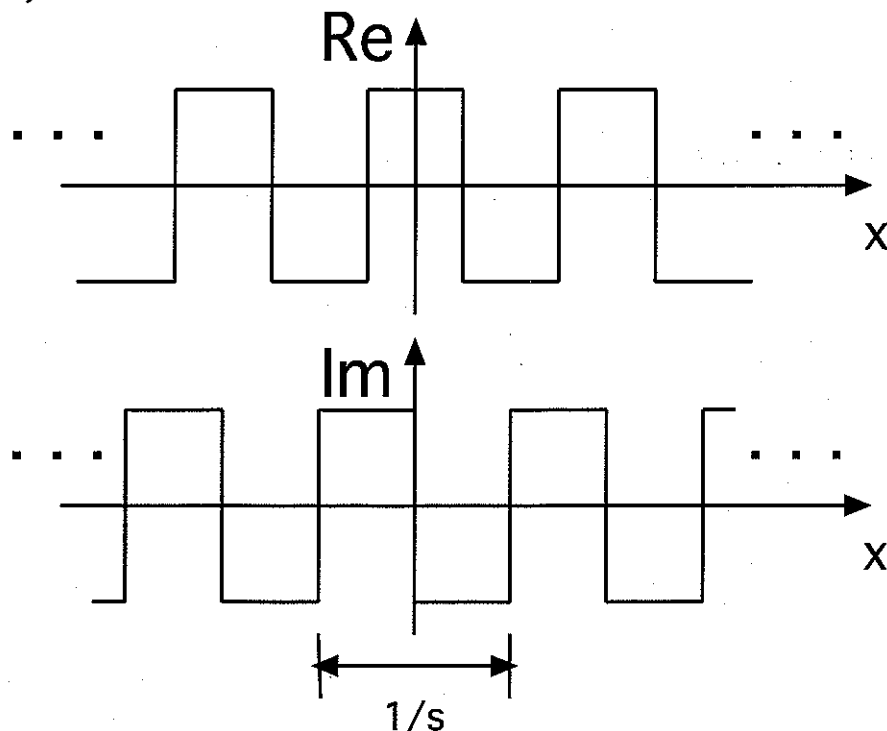
(b)



Consider the following transform:  $g(x) \xrightarrow{\text{transforms to}} \tilde{G}(s)$

$$\tilde{G}(s) = \int g(x) w(x,s) dx$$

where  $w(x,s)$  is



Indicate if the following transform properties still apply.

a)  $g(x - a) \longrightarrow \tilde{G}(s) \exp(-i2\pi as)$

b)  $g(ax) \longrightarrow \frac{1}{|a|} \tilde{G}(s/a)$

c)  $g(x) = f(x) * h(x) \longrightarrow \tilde{G}(s) = \tilde{F}(s) \tilde{H}(s)$