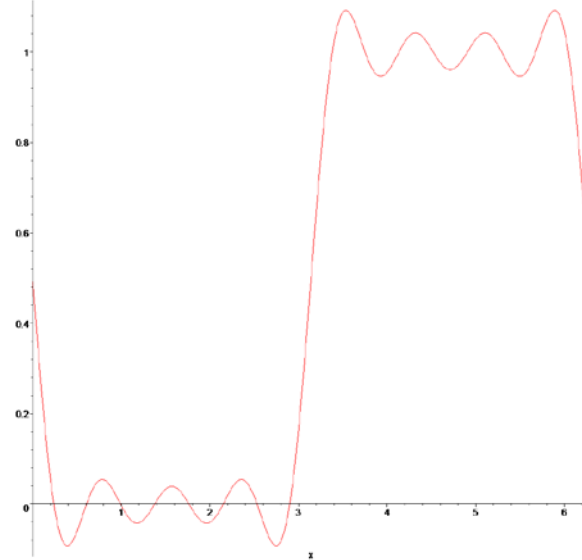
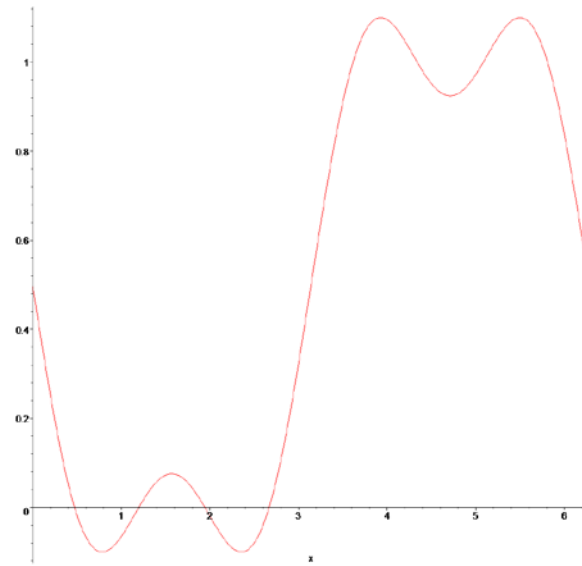
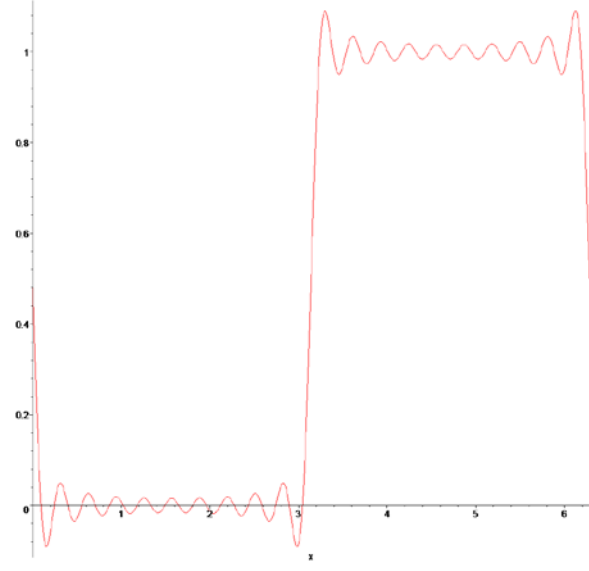
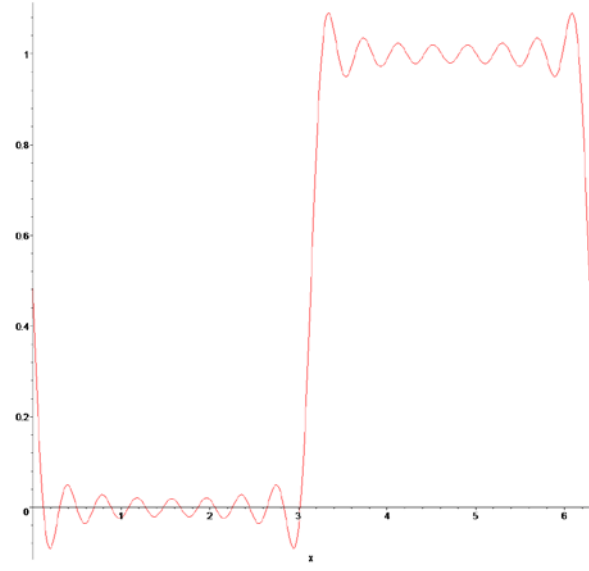
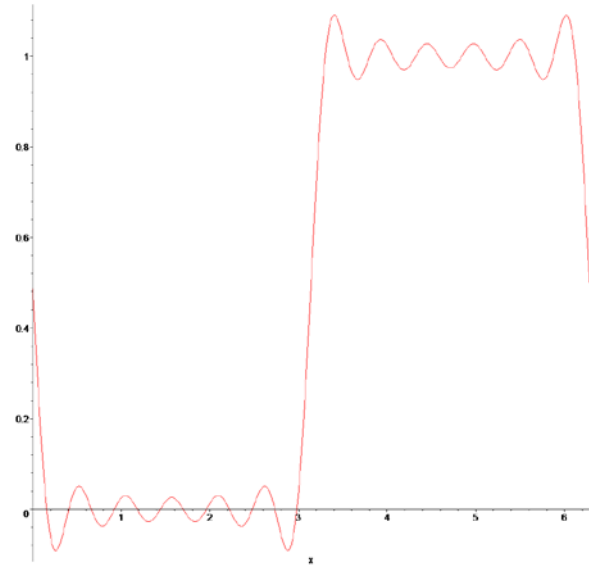


```
> g:= (x,N) ->
0.5+sum(evalf(1/Pi*int(sin(j*y),y=evalf(Pi)..evalf(2*Pi)))*sin(j
*x),j=1..N);
```

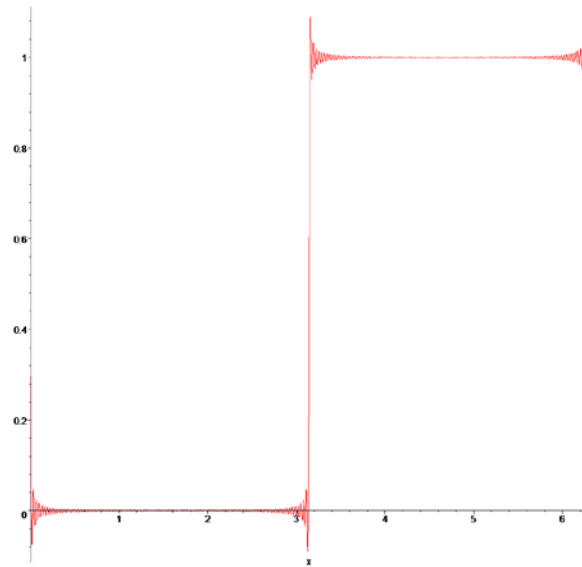
$$g := (x, N) \rightarrow 0.5 + \left(\sum_{j=1}^N \text{evalf} \left(\frac{1}{\pi} \int_{\text{evalf}(\pi)}^{\text{evalf}(2\pi)} \sin(j y) dy \right) \sin(j x) \right)$$

```
> for k from 1 to 5
do plot(g(x,4*k),x=0..2*Pi); od;
```





```
> Digits := 50; plot(g(x, 200), x=0..2*Pi, numpoints = 500);  
    Digits := 50
```



>