

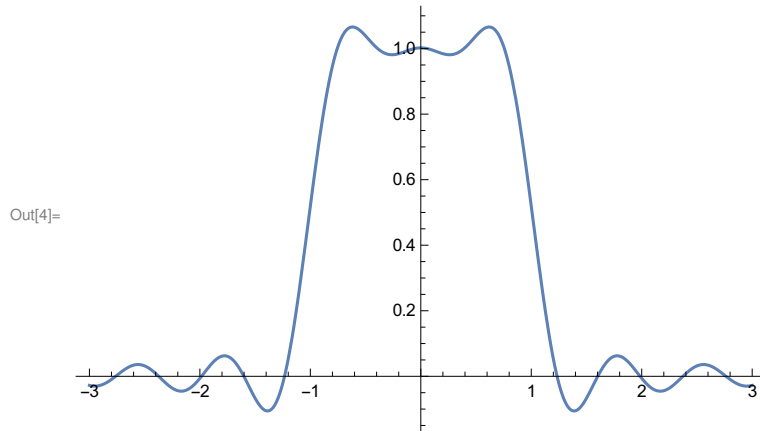
In[1]:= `Dkernel[x_, R_] := Sin[R x] / (Pi x)`

In[2]:= `IR[x_, R_] := Evaluate[Integrate[Dkernel[x - y, R], {y, -1, 1}]]`

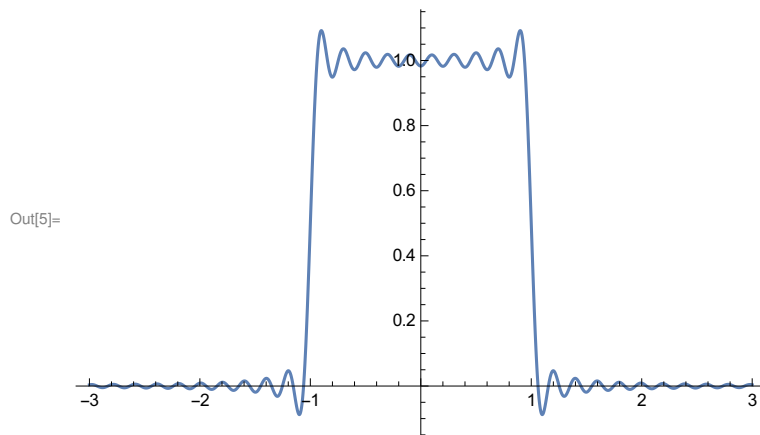
In[3]:= `IR[x, R]`

Out[3]=
$$\frac{\text{SinIntegral}[R(1+x)] + \text{SinIntegral}[R-Rx]}{\pi}$$

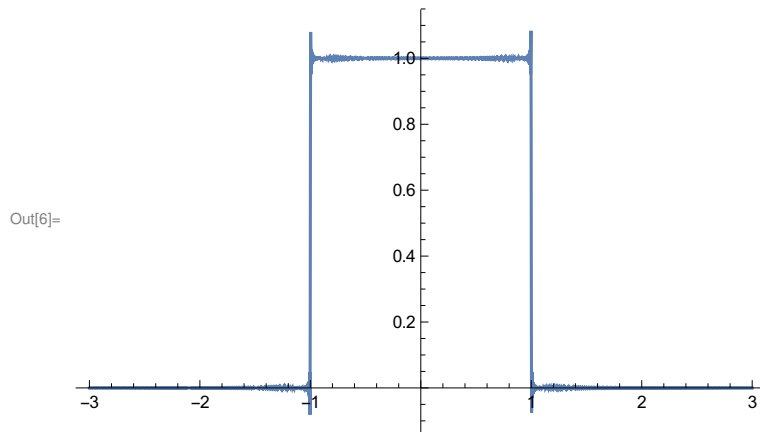
In[4]:= `R = 8; Plot[IR[x, R], {x, -3, 3}]`



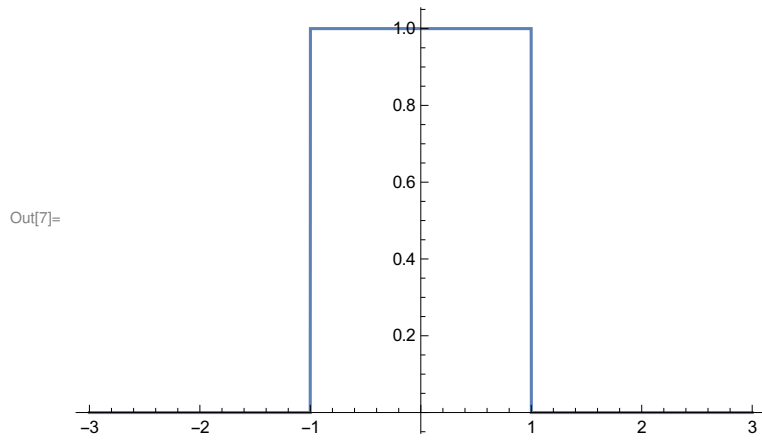
In[5]:= `R = 32; Plot[IR[x, R], {x, -3, 3}]`



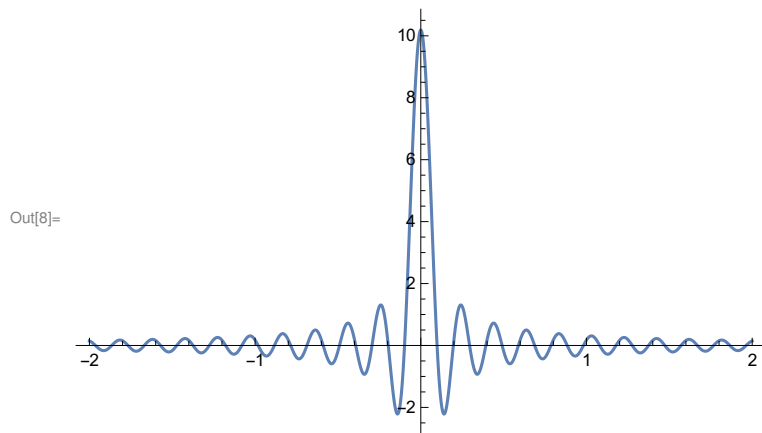
In[6]:= `R = 1000; Plot[IR[x, R], {x, -3, 3}]`



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In[7]:= Plot[If[Abs[x] < 1, 1, 0], {x, -3, 3}]
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In[8]:= Plot[Dkernel[x, 32], {x, -2, 2}, PlotRange -> All]
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In[9]:= Plot[{IR[x, 8], IR[x, 32], IR[x, 1000]}, {x, -3, 3}]
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