

> with(plots)

[animate, animate3d, animatecurve, arrow, changecoords, complexplot, complexplot3d, conformal, conformal3d, contourplot, contourplot3d, coordplot, coordplot3d, densityplot, display, dualaxisplot, fieldplot, fieldplot3d, gradplot, gradplot3d, implicitplot, implicitplot3d, inequal, interactive, interactiveparams, intersectplot, listcontplot, listcontplot3d, listdensityplot, listplot, listplot3d, loglogplot, logplot, matrixplot, multiple, odeplot, pareto, plotcompare, pointplot, pointplot3d, polarplot, polygonplot, polygonplot3d, polyhedra_supported, polyhedraplot, rootlocus, semilogplot, setcolors, setoptions, setoptions3d, spacecurve, sparsematrixplot, surfdata, textplot, textplot3d, tubeplot]

(1)

$$\begin{aligned} > u := (x, t) \rightarrow \frac{1}{\sqrt{\pi}} \left(\frac{1}{2} \operatorname{erf}\left(\frac{1}{2} \frac{x}{c \cdot \sqrt{t}}\right) \cdot \sqrt{\pi} - \operatorname{erf}\left(\frac{1}{2} \frac{x-1}{c \cdot \sqrt{t}}\right) \cdot \sqrt{\pi} \right. \\ & \quad \left. - 2 \cdot c \cdot \sqrt{t} \cdot \exp\left(-\frac{1}{4} \frac{x^2}{c^2 \cdot t}\right) - x \cdot \operatorname{erf}\left(\frac{1}{2} \frac{x}{c \cdot \sqrt{t}}\right) \cdot \sqrt{\pi} + 2 \cdot c \cdot \sqrt{t} \cdot \exp\left(-\frac{1}{4} \frac{(x-1)^2}{c^2 \cdot t}\right) \right. \\ & \quad \left. + x \cdot \operatorname{erf}\left(\frac{1}{2} \frac{x-1}{c \cdot \sqrt{t}}\right) \cdot \sqrt{\pi} \right) \end{aligned}$$

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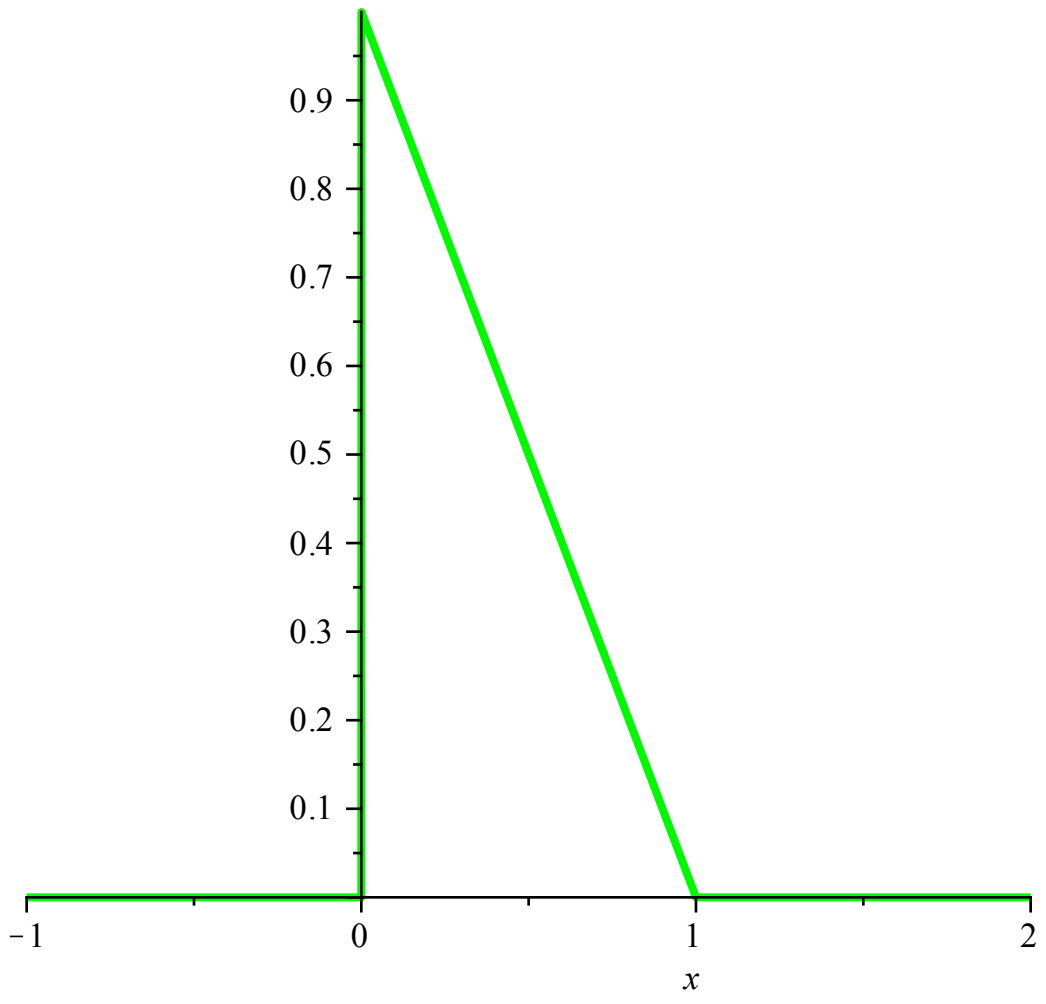
$$> c := \frac{1}{2}$$

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(3)

> animate(plot, [u(x, t), x = -1 .. 2, thickness = 3, color = green], t = 0.00000000000001 .. 20, frames = 60)

$t = 1.10^{-13}$



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