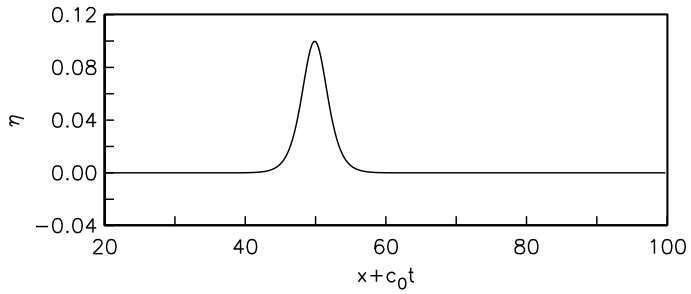
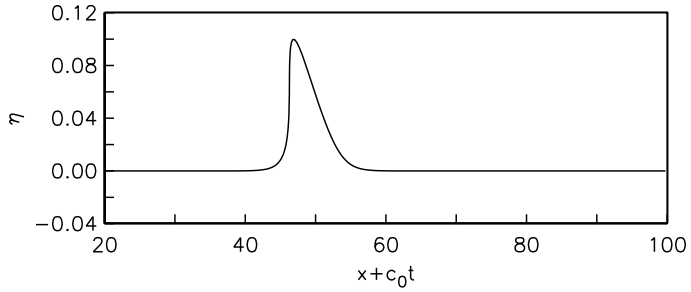
22 Guess the equation.

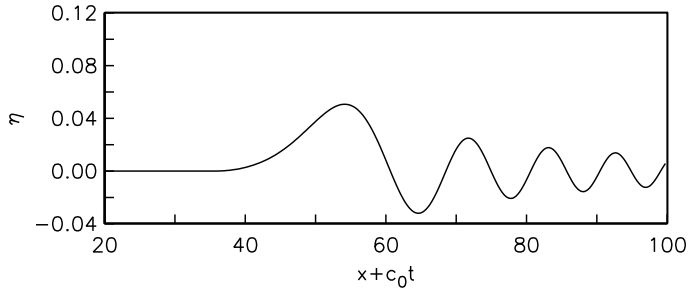
(a): Which equation(s) give(s) this ?.



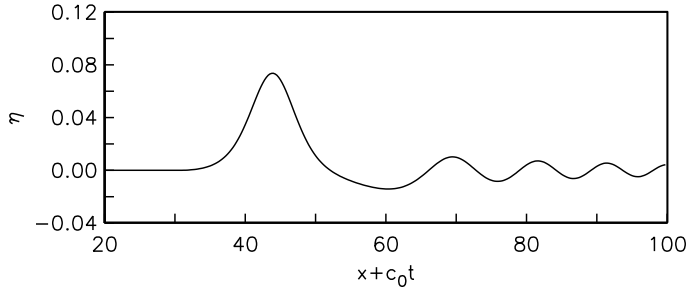
(b): and this ? ($t = 20$)



(c): and this, then ? .



(d): and, finally, this ?



The figure shows the evolution of the surface elevation from a symmetric initial wave, moving towards the left, as obtained by the application of different equations. The plots are normalized with respect to equilibrium depth and the initial height and length are 0.1 and 10, respectively. The coordinate system moves in the negative x direction with the shallow water speed. At $t = 0$ the crest is at $x' = x + c_0 t = 50$. Except from (b) the elapsed time equals 200 units, meaning that

200 depth would have been covered when moving with the linear shallow water speed. Match panels and possible equations (there may be more than on set for each panel).