* EQUATIONS
* Describe all terms, parameters, boundary conditions and initial conditions
* Parameters:
* x (length of channel, m) = 50m
* Discretization made in 50 intervals of 1m each
* B (width of channel, m) = 50m
* t (time, s) = 15 hours
* Divided into 360 intervals of 150 seconds each
* A (cross section area of flow, m2) = 1
* y (surface level of water, m) =
* S0 (slope of bottom of channel) = .0002
* Sf (slope of energy grade line) = 0
* g (acceleration due to gravity, m/s2) = 9.8
* Initial conditions:
* Q(x,0) = Q0
* Q0 is the steady state flow of the channel
* A(x,0) = A0
* A0 is the cross section area for the steady state conditions
* Boundary conditions:
* Simplifications were made:
* Flow is considered 1D
* Distribution of pressure vertically is hydrostatic
* Water is incompressible and homogenous
* Density is constant through time and space
* Boundary Conditions: