Dynamic processes are often characterized by a gain (Kp), time constant (τp), and sometimes dead-time (θp). Use a [graphical fitting method](http://apmonitor.com/pdc/index.php/Main/FirstOrderGraphical) to estimate the three characteristic parameters of the following dynamic systems described by a first-order linear system with time delay.

1. Find Δy from step response
2. Find Δu from step response
3. Calculate Kp=ΔyΔu
4. Find , apparent dead time, from step response
5. Find 0.632Δy from step response
6. Find t0.632 for y(t0.632)=0.632Δy from step response
7. Calculate τp=t0.632−θp. This assumes that the step starts at t=0. If the step happens later, subtract the step time as well.