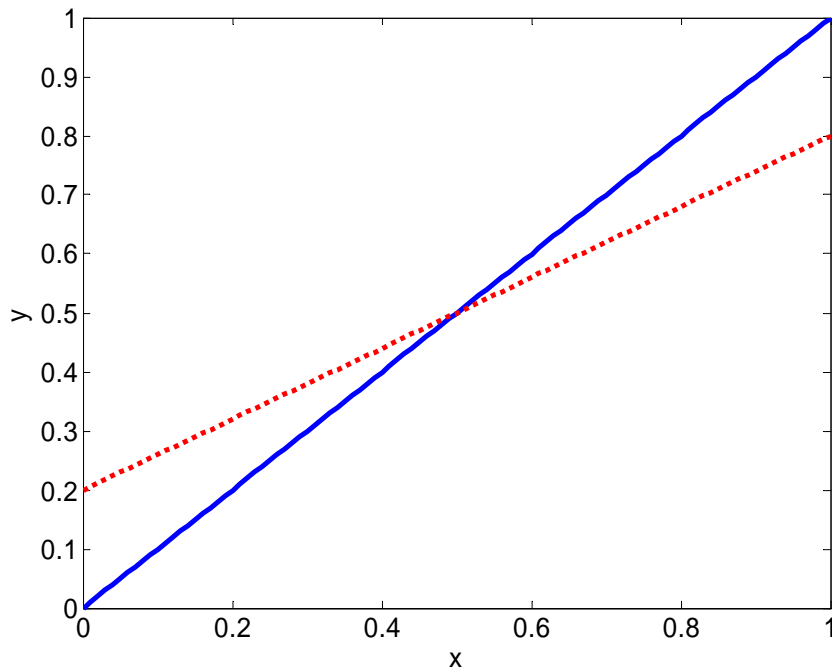
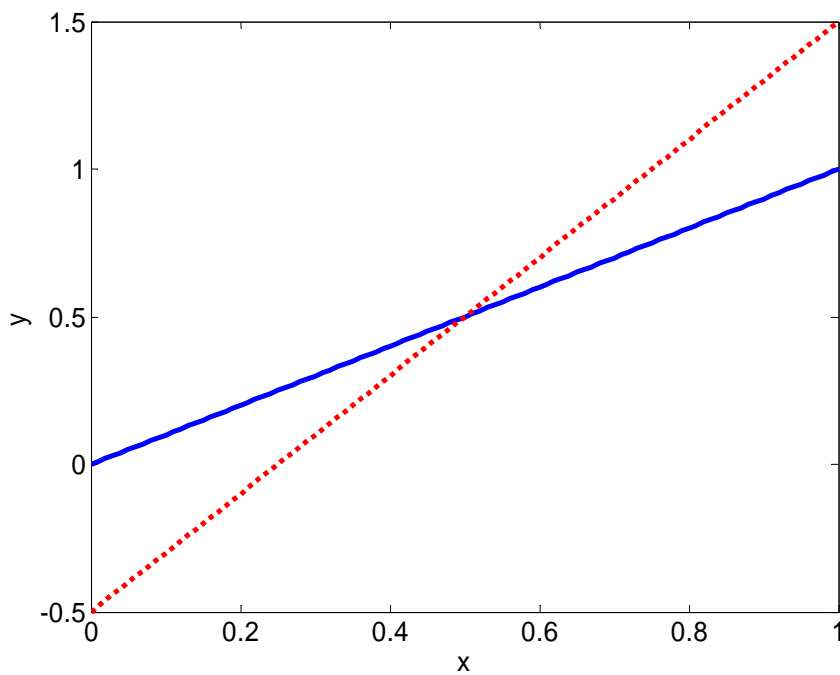


## Cobweb plots: dynamical systems analysis

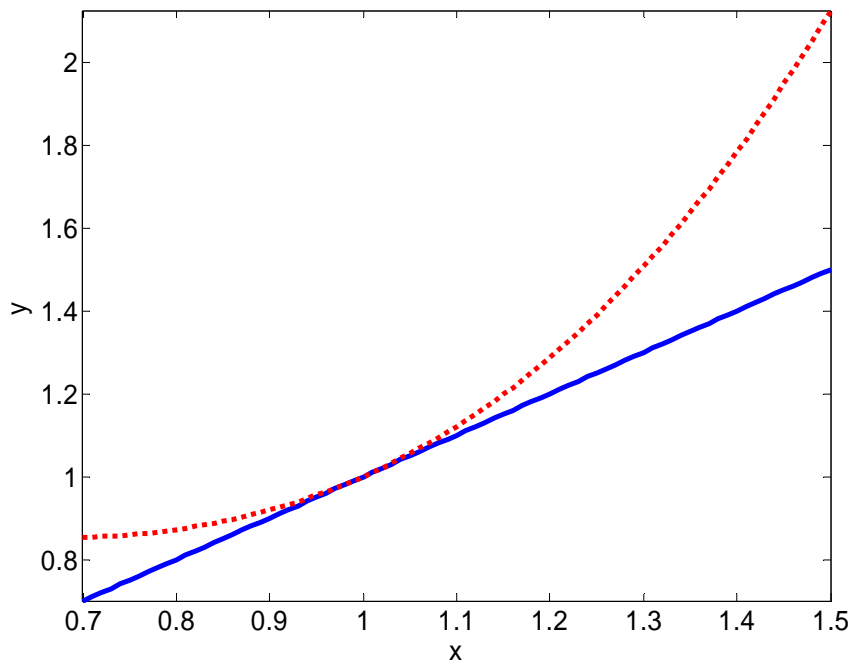
In all questions, dotted line is  $y = f(x)$ , solid line is  $y = x$ . Determine the stability of the fixed point (NB Fixed point is where the lines cross)



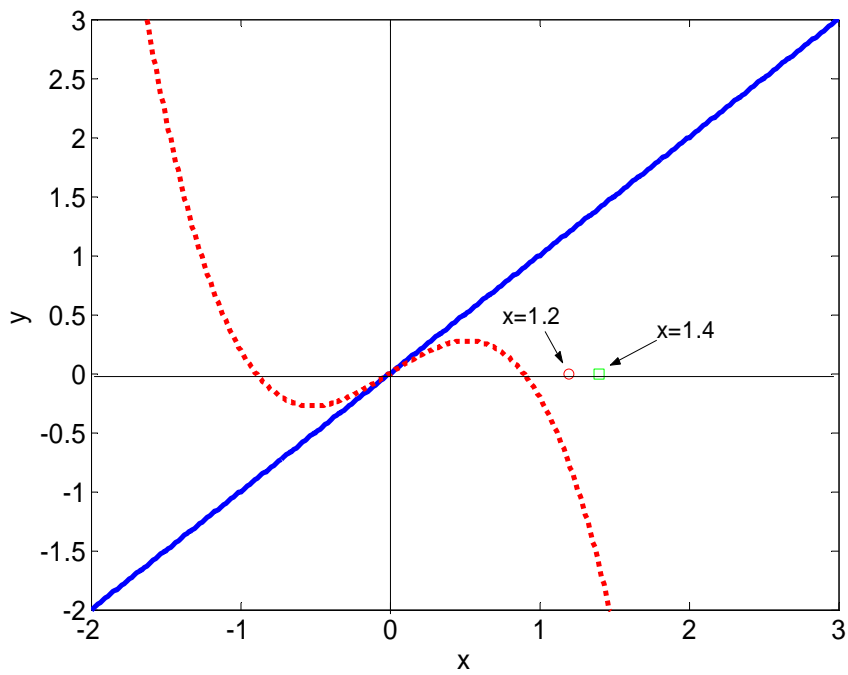
1)  $y = 0.6x + 0.2$ : Start from  $x=0.2$  and  $x=0.75$



2)  $y = 2x - 0.5$ : Start from  $x=0.4$  and  $x=0.6$



3)  $y = x^3 - x^2 + 1$ : Start from  $x=0.75$  and  $x=1.2$



4)  $y = 0.8x - x^3$ : Start from  $x=1.2$  and  $x=1.4$