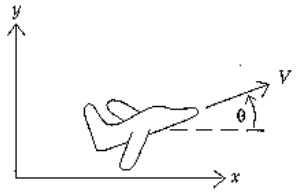
Math 2326 **Worksheet #2**

Time-Series for a Glider

Below is a direction field modeling the flight of a glider airplane and two flight trajectories. $v(t)$ ***denotes the (forward) velocity of the glider,*** $\theta(t)$ ***is the angle between the nose of the plane and the horizontal. The model does not take into account the drag force a glider experiences; this means in particular that the glider in the model will stay in the air forever.***



Draw the time series (i.e. the graph of the solutions in the θ***-***t***-plane and in the*** v***-***t***-plane) for both flights. Then describe both flights in plain English.***