

HW1.1 Solve (=find all solutions) to

$$x' = \frac{\cos^2 x}{1 + t^2}$$

HW1.2 Outline graphs of your solutions. Do they fill the (t, x) plane?

HW1.3 Find the solution subject to the initial condition $x(0) = 1$. Also, to the initial condition $x(0) = \pi + 1$.