Follow this path:
Each arrow indicates slope at \((x, y)\)
\[= \frac{dy}{dx}\]

Traced curve is solution to

\[\frac{dy}{dx} = f(x, y)\]
1. Pick an initial condition
2. Trace the solution curve
\[ \frac{dy}{dt} = \frac{t^2}{20} \]

\[ y = \frac{t^3}{60} + C \]
Further practice with Mathematica demonstration (available from course web page)

Using the TI-89 to graph direction fields (handout)

Euler’s Method for solving differential equations