Guided Notes (Sample Responses)

# Vocabulary

* **differential equation:** an equation that relates an unknown function, *y*, and its derivative(s)



slope

function in terms of *x*’s and *y*’s

* **lineal element:** a short line segment drawn through  with slope 
* **slope field (direction field):** the graphical representation of a differential equation made up of a collection of lineal elements

# Example Problems

**1)** Use the given slope field to find the general solution of the differential equation: .





**general solution:** 

**2)** Plot the slope field for the differential equation: . Sketch a reasonable solution using the initial condition: .



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