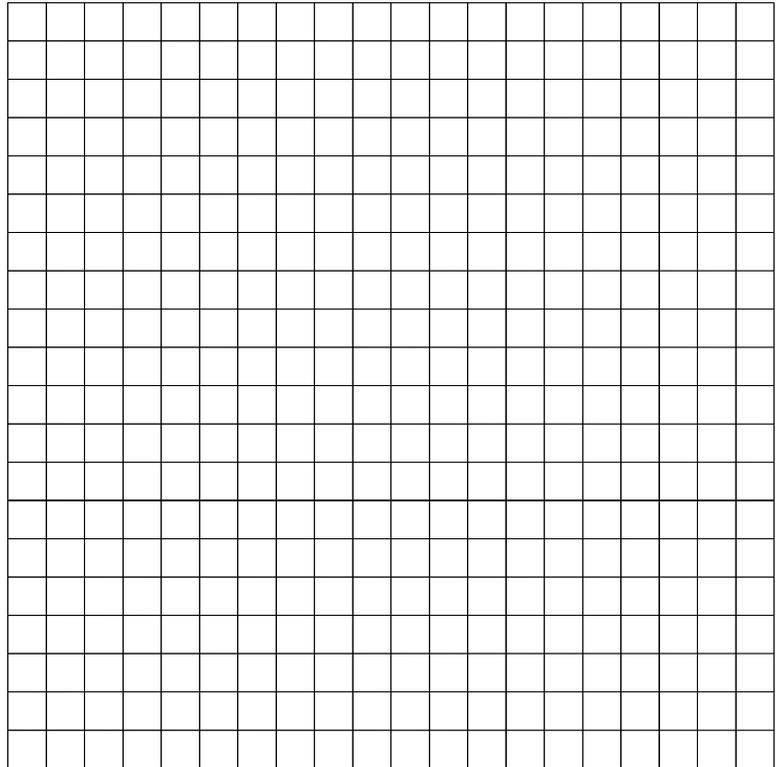

$$\text{Distance} = f(\text{Time})$$

Here is some data about a hike from Catalina State Park to the top of Mt. Lemmon. Make a table and a graph that show how distance depends on time. Interpolate and extrapolate as necessary.

Time (minutes)	Distance to top (miles)
0	12
15	11.6
30	11.3
60	10.5
90	9.8
150	8.25
180	7.4
270	5.25

Time (minutes)	Distance (miles)
0	
15	
30	
45	
60	
120	
180	
240	
300	
360	
420	
480	
540	
600	
660	



Write an equation that models distance as a function of time and solve it for t to find the inverse function. Use this inverse function to predict when the hikers will reach the top.

Use the back of the paper to write a description and create a system dynamics model and to explain the strengths, weaknesses, and limitations of your model.