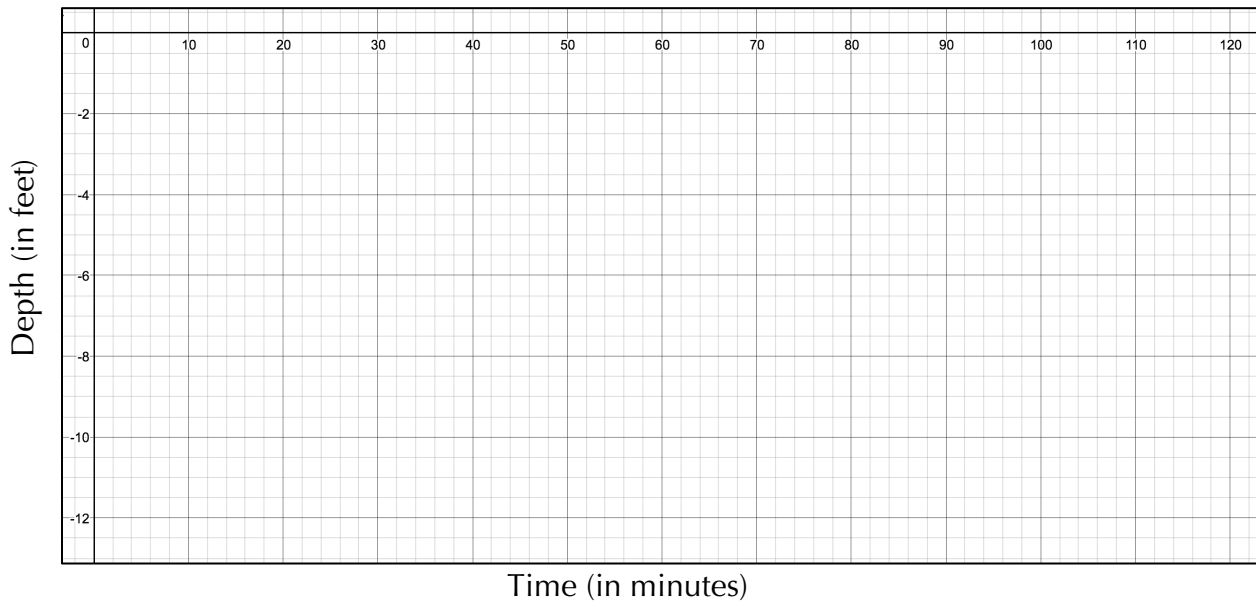


Assignment 3.1 – Features of Function

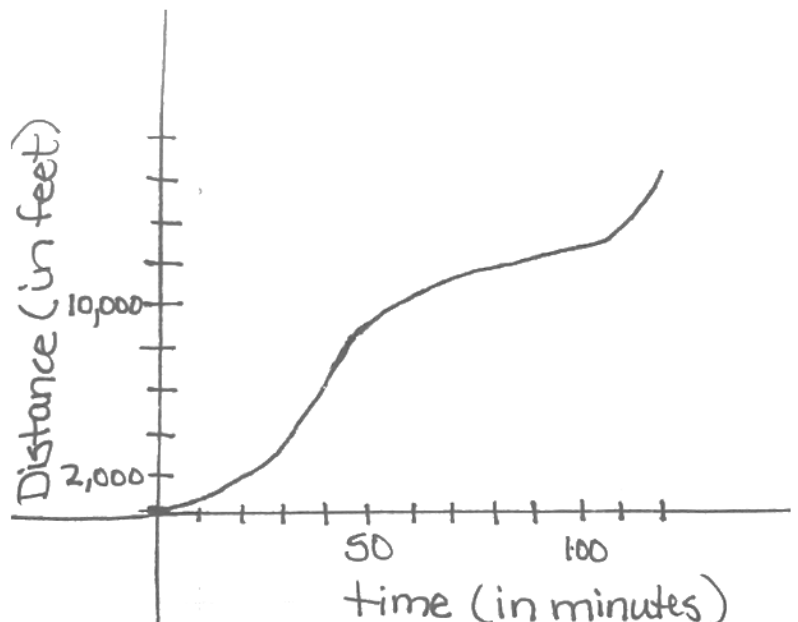
Alonzo, Maria, and Sierra were floating the river on inner tubes. Alonzo noticed that sometimes the water level was higher in some places than in others. Maria noticed there were times they seemed to be moving faster than other times. Alonzo and Maria collected data throughout the trip.

- Use the data collected by Alonzo to graph each point on the graph below. Once the points are graphed, connect the points, and color (or highlight) positive slope and negative slope in two different colors. Also show the highest depth and lowest depth of the water.

Time (min)	0	10	20	30	40	50	60	70	80	90	100	110	120
Depth (ft)	-4	-6	-8	-10	-6	-5	-4	-5	-7	-12	-9	-6.5	-5



- Maria created a graph by collecting data on a GPS unit that told her the distance she had traveled over a period of time. Using the same colors as above, color the positive slope and negative slope.



3. Sierra looked at the data collected by her two friends and made several of her own observations. Explain why you either agree or disagree with each observation made.
- a) The depth of the water has positive slope and negative slope throughout the 120 minutes of floating down the river.
 - b) The distance traveled is always a positive slope.
 - c) The distance traveled is a function of time (the graph is measured over a time period).
 - d) The distance traveled is greatest during the last ten minutes of the trip than during any other ten-minute interval of time.
 - e) There is more changes on Alonzo's graph than on Maria's graph.
 - f) The y-intercept of the depth of water over time function is (0,0).
 - g) The distance traveled has a positive slope and negative slope over time.
 - h) The depth of the water is never 11 feet.
 - i) The lowest and highest of the distance/time graph is from 0 to 15000.
 - j) The lowest and highest time on the depth of water is from 0 to 120.
 - k) The lowest and highest of the depth of water over time is from -4 to -5 .
 - l) The distance/ time graph has no lowest value.
 - m) The depth of water reached its greatest depth at 30 minutes.