

3.2 Floating Down the River

Learning Target-

Identify key features of functions in a table and graph

Feet) Depth Time (in minutes)

0	10	20	30	40	50	60	70	80	90	100	110	120
4	6	8	10	6	5	4	5	7	12	9	6.5	5

Continuous

Domain - $\{x | x \in \mathbb{R}, 0 \leq x \leq 120\}$

Range - $\{y | y \in \mathbb{R}, 4 \leq y \leq 12\}$

Interval Notation

If an interval (section) of a graph is continuous we can also use interval notation

In intervals we take the lowest value and the highest value and put them together in brackets.

The domain is all the x's from 0 to 120, We can write this as $[0, 120]$

The range can be written as $[4, 12]$

Other features of the table.

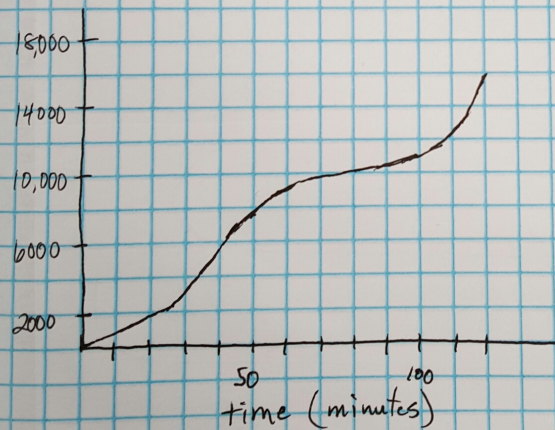
Increasing - $[0, 30]$ $[60, 90]$

Decreasing - $[30, 60]$ $[90, 120]$

} We use x values to describe the intervals.

<u>Max</u> and <u>Min</u>	<u>x-intercept</u>	<u>y intercept</u>
$(90, 12)$ $(0, 4)$ $(60, 4)$	none y is never 0	$(0, 4)$ where $x=0$

All of these features are points.



Continuous

Domain - $[0, 120]$

Range - $[0, 16000]$

Increasing - $[0, 120]$

Max - $(120, 16000)$

Min - $(0, 0)$

x int - $(0, 0)$

y int - $(0, 0)$