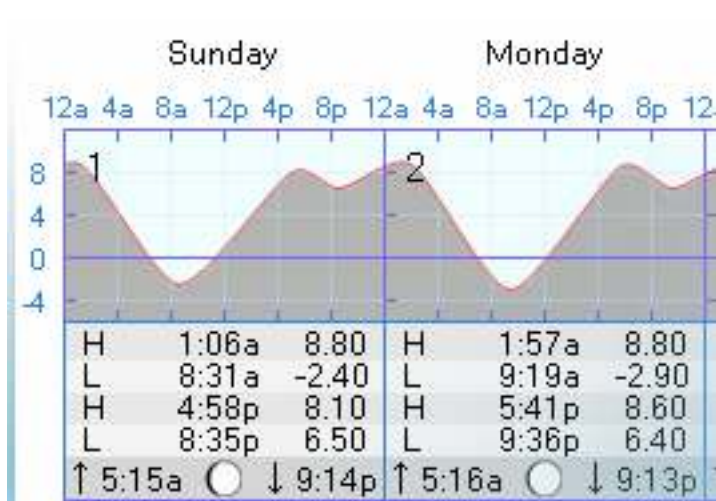


M48C/Schoenbrun Section 8.1: Introduction to Periodic Functions

Below is a graph of a tide chart:



Questions:

1. Is tide a function of time? Describe how you know.
2. Determine if the tide function,  $H(t)$ , appears to be **periodic** in nature. How do you know?
3. What is the **period** of the tide function?
4. What is the **frequency** of the tide function?
5. What is the **amplitude** of the tide function?
6. What is the **range** of the tide function?
7. What is the **midline** of the function?

Here is a table of data:

X	0	1	2	3	4	5	6	7	8	9	10
Y	2	10	14	2	10	14	2	10	14	2	10

1. Is Y a function of X? Describe how you know.
2. Determine if the function  $Y(X)$ , is periodic in nature. How do you know?
3. What is the period of Y?
4. What is the frequency of Y? If X has the units of seconds, what does the frequency tell us?
5. What is the amplitude of Y?
6. What is the range of Y?
7. What is the midline of the function?