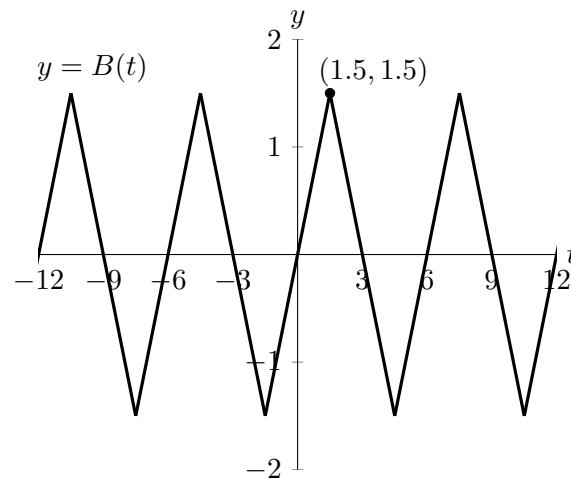


4. [10 points] The plot below shows a graph of $y = B(t)$, the height in feet of a buoy floating in the ocean t minutes after **6 am**.



Use the graph to answer the following questions:

- a. [2 points] What is the period of $B(t)$? Include units.

Solution: The period of $B(t)$ is 6 minutes.

- b. [3 points] For each of the following transformations, write down if the the function is even, odd, or neither.
- $B(t - 7.5) + 1$.
 - $-B(t) + 2.25$.
 - $B(-t)$.

Solution:

- Even.
- Neither.
- Odd.

- c. [5 points] Let $G(h)$ be the function telling you the height in **inches**, at time h **hours** after **8 am**. Write a formula for $G(h)$ in terms of B . (Recall that there are 12 inches in one foot.)

Solution: $G(h) = 12B(60(h - 2))$; this can also be written $12B(60h - 120)$.