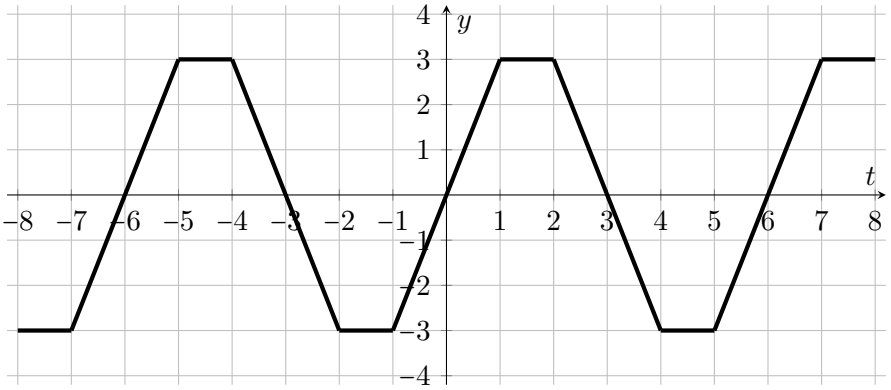
1. [12 points] Below is a graph of periodic, odd function $h(t)$, with period 6:



a. [3 points] A **new** function $g(t) = -h(2t)$ ...

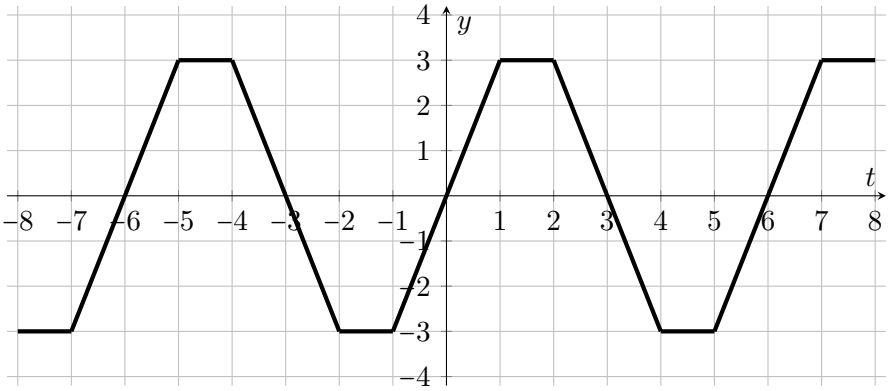
- ... has period: _____
- ... is (CIRCLE ONE) **ODD** **EVEN** **NEITHER**
- ... has amplitude: _____

b. [3 points] Another **new** function $w(t) = 3h(t-1)$ ...

- ... has period: _____
- ... is (CIRCLE ONE) **ODD** **EVEN** **NEITHER**
- ... has maximum value: _____

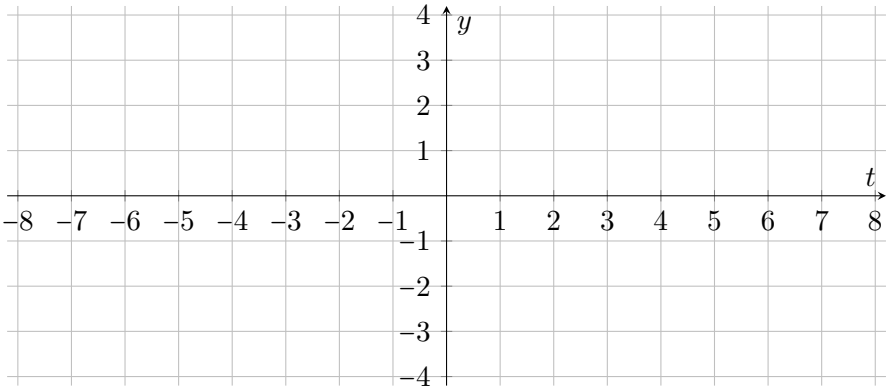
This problem continues on the next page.

The graph of $h(t)$ is reproduced here for your convenience.

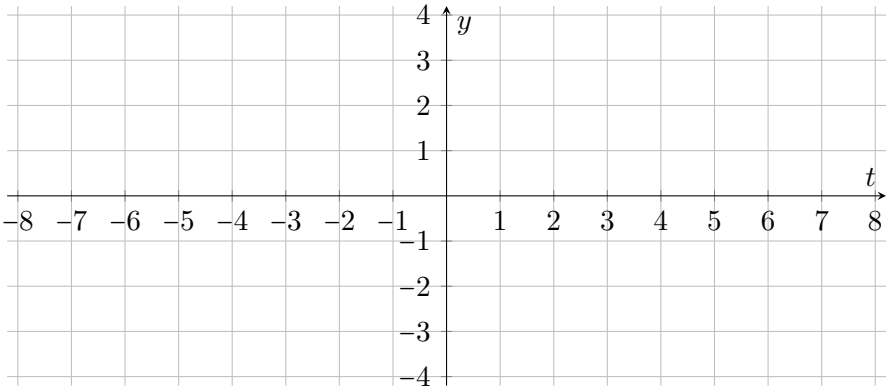


c. [6 points] Carry out the following sequence of transformations to the graph of $h(t)$. Draw each intermediate graph on the provided axes. *Clearly label at least three specific, known points in each graph.*

1. Shift the graph of $h(t)$ up by 1 unit.



2. Reflect the resulting graph over the t-axis.



Call the function in the final graph $k(t)$. What is a formula for $k(t)$ in terms of $h(t)$?

$k(t) =$ _____