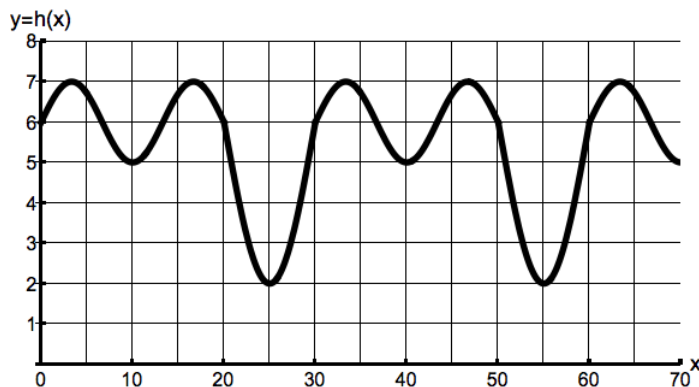


6. [12 points]

- a. [6 points] Scientists have been recording the number of cases of an infectious disease. They have found that the number of cases reported changes periodically over time, with a period less than 70 weeks. Let $h(x)$ be the average number of cases (in thousands) reported x weeks after the first week of January 2014. The graph of $y = h(x)$ is shown below.



Find the period, amplitude and the equation of the midline of the function $y = h(x)$.

Period=_____ Amplitude=_____ Midline:_____

- b. [3 points] Let $f(x)$ be a periodic function, with period equal to 7, whose domain is all the real numbers. Some of the values of the function $f(x)$ are shown below.

x	-4	-2	0	2
$f(x)$	1	4	7	10

Find the value of the following values of $f(x)$. Write “NP” if it is not possible to determine the value of the function with the information given to you.

$f(3) =$ _____ $f(8) =$ _____ $f(-5) =$ _____

- c. [3 points] Some of the values of an odd function $g(x)$ are shown below

x	-6	-1	3	4
$g(x)$	1	-5	7	-10

Find the value of the following values of $g(x)$ assuming that the function is defined for all real numbers. Write “NP” if it is not possible to determine the value of the function with the information given to you.

$g(-3) =$ _____ $g(0) =$ _____ $g(5) =$ _____