

4. [17 points] The following table contains information about the functions $F(x)$, $G(x)$, and $H(x)$. The functions satisfies the following properties:

- $F(x)$ is a power function.
- $G(x)$ is an odd, periodic function with period 7.
- $H(x)$ is a quadratic function with average rate of change -1.5 on $[0, 5]$

Assume that all three functions are defined for all real numbers.

x	2	5	8
$F(x)$	$\frac{3}{5}$	$\frac{75}{8}$	$\frac{192}{5}$
$G(x)$	4	?	11
$H(x)$	0.4	-3.5	-5.6

a. [8 points] Compute the following values. If it cannot be determined, write NEI. You don't need to show work on this part of the problem, but you could receive partial credit for work shown.

• $F(0) =$ _____

• $G(0) =$ _____

• $G(1) =$ _____

• $G(5) =$ _____

• $G(-8) =$ _____

• $H(0) =$ _____

b. [6 points] Find a formula for $F(x)$. Circle your answer.

c. [3 points] What is the sign of the leading coefficient of $H(x)$? Give a brief justification of how you determined it.