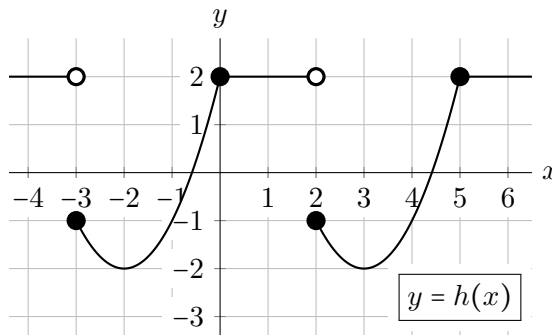


1. [11 points] Below is a table of some values for the functions  $f(x)$  and  $g(x)$ , and a partial graph of the function  $y = h(x)$ , which is periodic with period 5.

$x$	-5	-3	1	3
$f(x)$	27	18	12	8
$g(x)$	12	15	21	24



For each of the following, completely fill in the circle for **all** correct answers.

- a. [2 points] Which of these functions could be linear?

☐  $f(x)$       ☐  $g(x)$       ☐  $h(x)$       ☐ NONE OF THESE

- b. [2 points] Which of these functions could be exponential?

☐  $f(x)$       ☐  $g(x)$       ☐  $h(x)$       ☐ NONE OF THESE

- c. [2 points] Which of these functions could be invertible?

☐  $f(x)$       ☐  $g(x)$       ☐  $h(x)$       ☐ NONE OF THESE

- d. [3 points] Find each of the following values exactly, or write NEI if there is not enough information to do so.

$$\frac{f(3)}{g(3)} = \underline{\hspace{2cm}} \qquad g\left(\frac{1}{4}f(3) - 1\right) = \underline{\hspace{2cm}} \qquad h(-23) = \underline{\hspace{2cm}}$$

- e. [2 points] Find the period of the function  $-h\left(\frac{1}{3}x\right)$ .

**Answer:**