

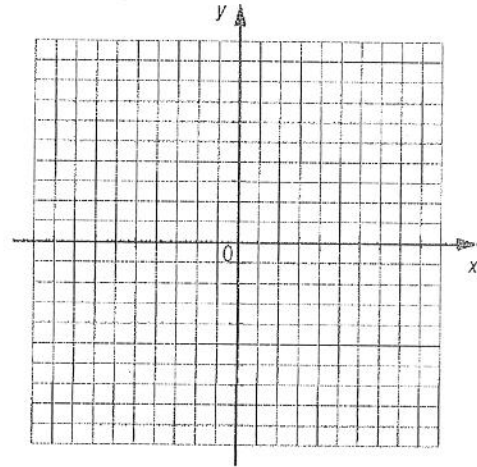
Name: _____

Group: _____ Date: _____

2 For each case, draw a graphical representation of the function that corresponds to the description provided.

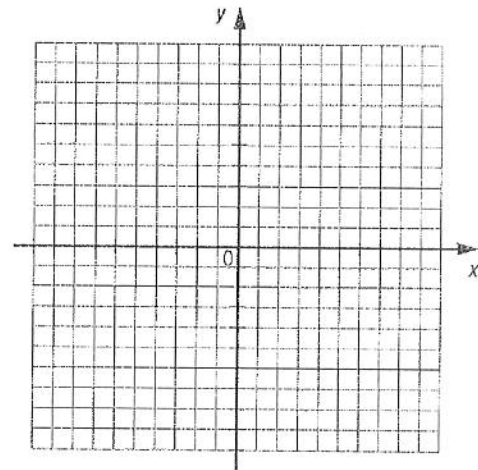
a)

Values of the independent variable	Value of the dependent variable
$[-8, -6]$	14
$] -6, -2]$	6
$] -2, 0[$	-10
$[0, 4]$	4
$]4, 6]$	8
$]6, 10]$	-2



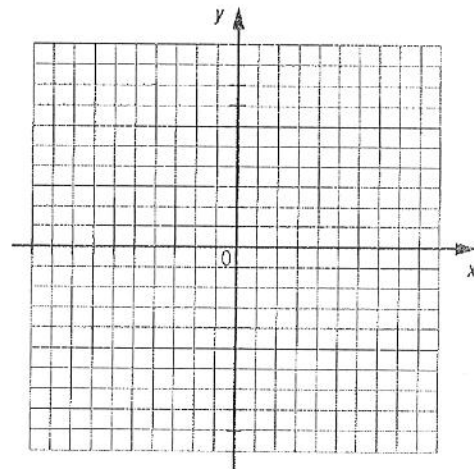
b) A periodic function where:

- the period is 4
- the domain is $[-10, 8]$
- the maximum is 9, and the minimum is -8
- the curve passes through the point $(-9, -8)$



c)

$$f(x) = \begin{cases} 2x + 10 & \text{if } x \in [-9, -1] \\ 8 & \text{if } x \in [-1, 2] \\ -2x + 12 & \text{if } x \in [2, 4] \\ 4 & \text{if } x \in [4, 6] \\ -3x + 22 & \text{if } x \in [6, 10] \end{cases}$$

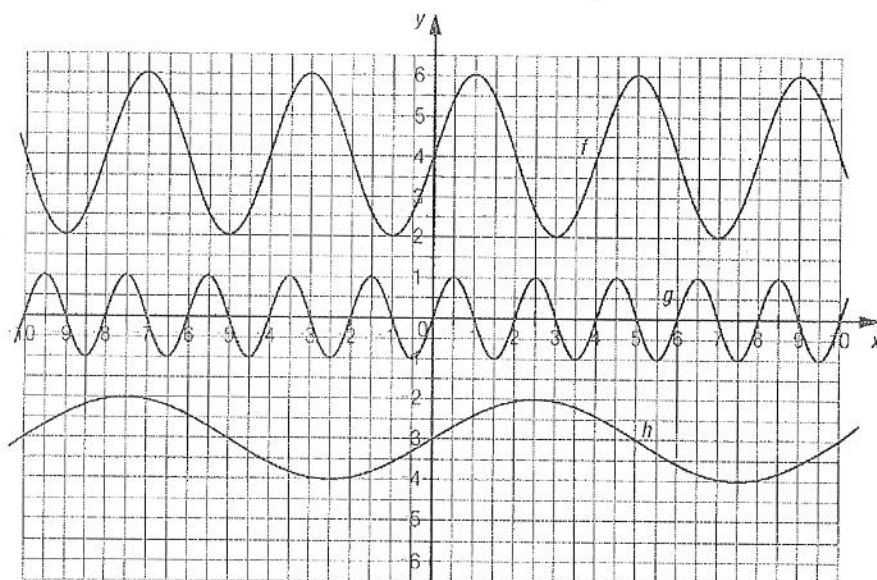


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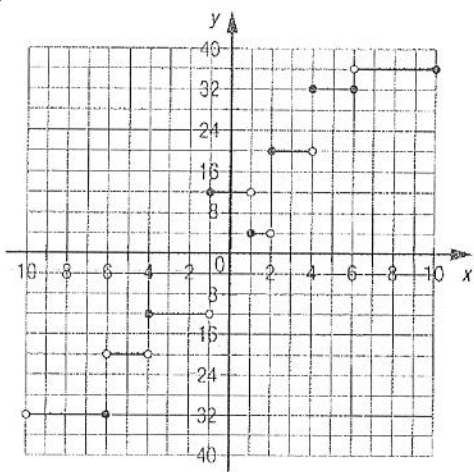
3 Determine the period of each of the following functions.



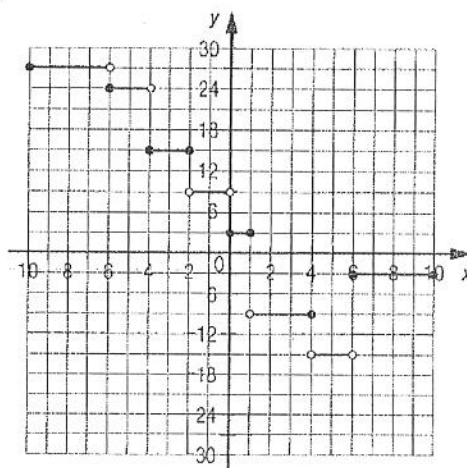
f: _____ g: _____ h: _____

4 Determine the critical values of the following step functions.

a)



b)



Name: _____

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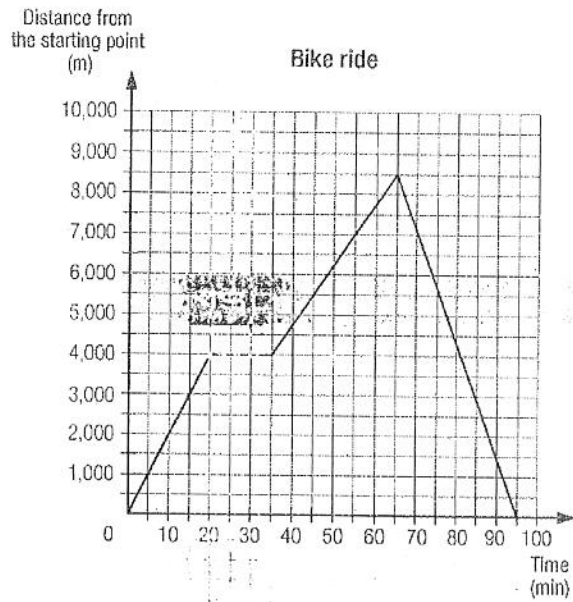
5 The adjacent graphical representation provides information on a bike ride taken by a cyclist.

- a) What type of function is it?

- b) When did the cyclist stop?

- c) How long did the bike ride last?

- d) What is the total distance covered by this cyclist?



6 The adjacent graphical representation provides information on the voltage of an alternating current.

- a) What are the extrema of the function that serves as a mathematical model of this situation?

- b) What is the period of this function?

- c) For the interval shown, determine:
 - 1) the zeros

 - 2) the variation

 - 3) the sign

 - 4) the domain and range

