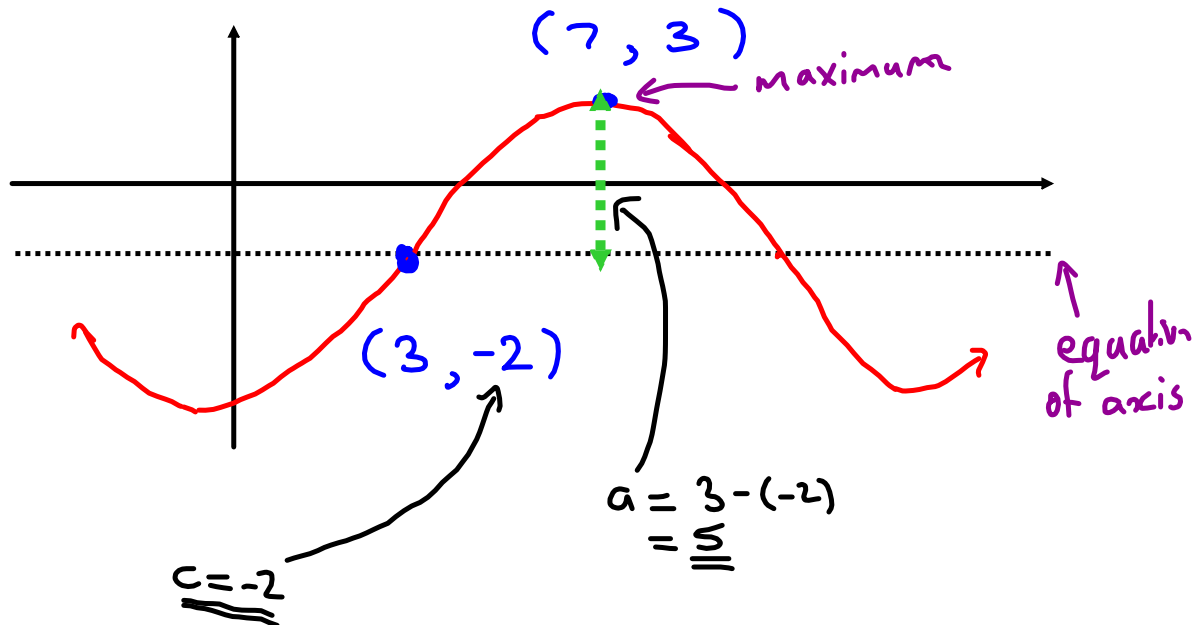


Unit 6 Sinusoidal Functions Review

Warm Up: Given the points on the sinusoidal function (below), write an equation that models the function. (show your calculations for each parameter)



Period The point on the 'Equation of the Axis' to the maximum point represents $\frac{1}{4}$ of a period
 $\frac{1}{4}$ of Period = $7 - 3$
 $= 4$

$$\text{Period} = 4 \times 4$$

$$= \underline{\underline{16}}$$

$$k = \frac{360}{\text{period}}$$

$$= \frac{360}{16}$$

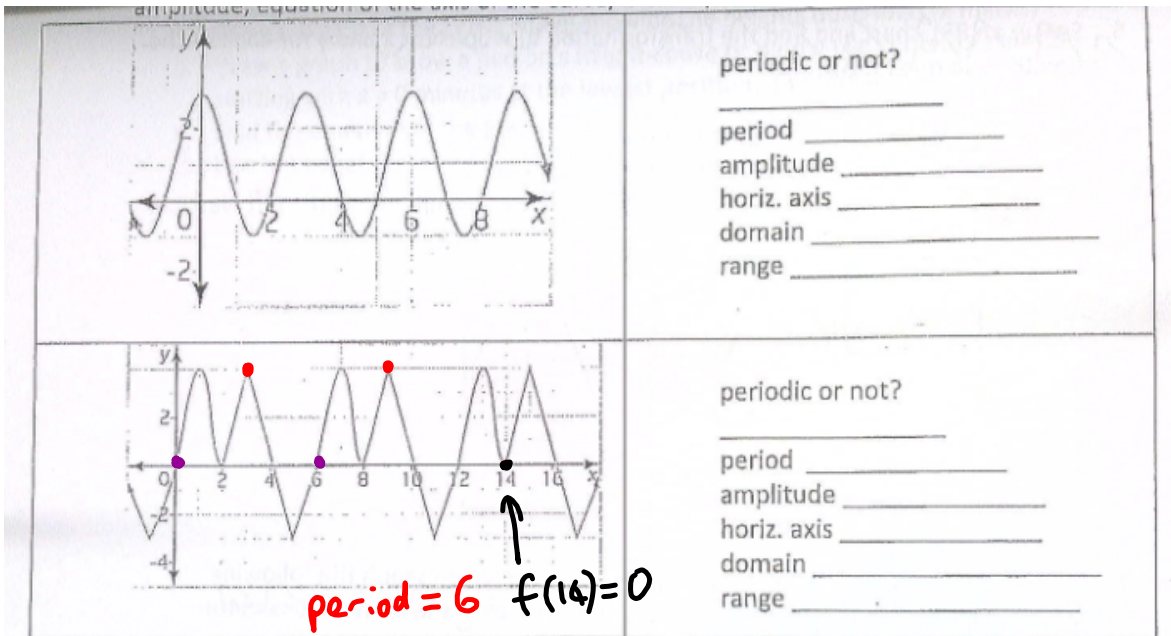
$$= \underline{\underline{22.5}}$$

Possible Answers:

$$y = 5 \cos [22.5(x-7)] - 2$$

$$y = 5 \sin [22.5(x-3)] - 2$$

$$y = -5 \cos [22.5(x+1)] - 2$$



2.

- In the first graph above, what would be the coordinates of the next maximum (not shown in the graph) be?
- In the second graph above, what is $f(32)$?

$$\begin{aligned}
 & f(32) \xrightarrow{-6} \\
 & = f(26) \xrightarrow{-6} \\
 & = f(20) \xrightarrow{-6} \\
 & = f(14) \xrightarrow{-6} \\
 & = \underline{\underline{0}}
 \end{aligned}$$

Subtract the period length from 'x' until you hit a known $f(x)$ value.

Homework: complete handout and p404 #1, 3, 6, 7, 8, 9, 12, 13