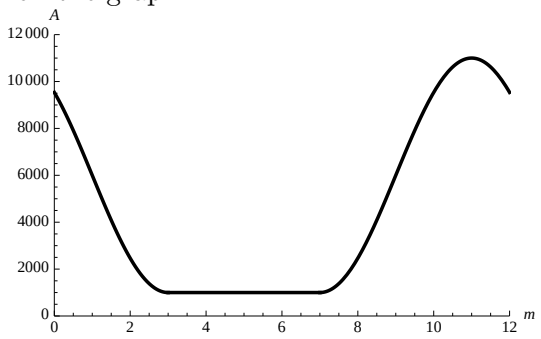
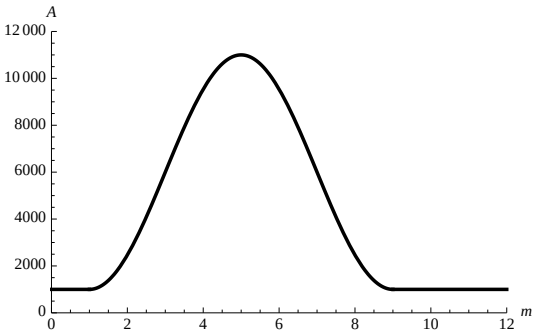
8. [18 points] The figure below gives the graph of a function $A = b(m)$. The function is periodic and a full period is shown on the graph.



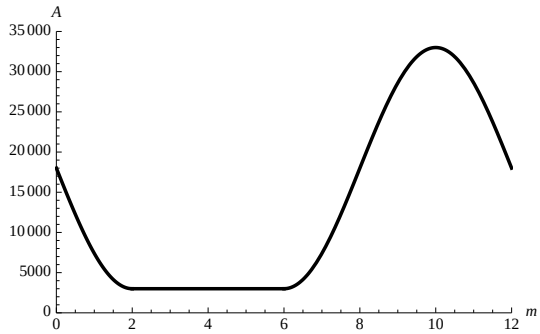
a. [8 points] For each of the following graphs, give an expression for the function depicted in terms of the function b.

$f(m)$



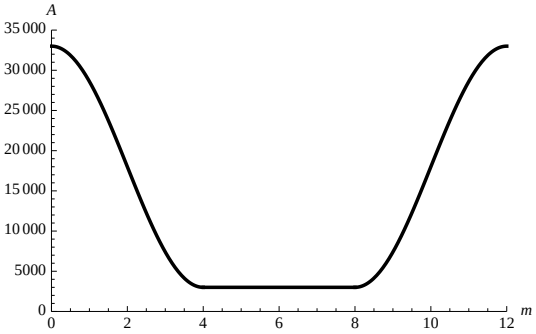
$f(m) =$ _____

$g(m)$



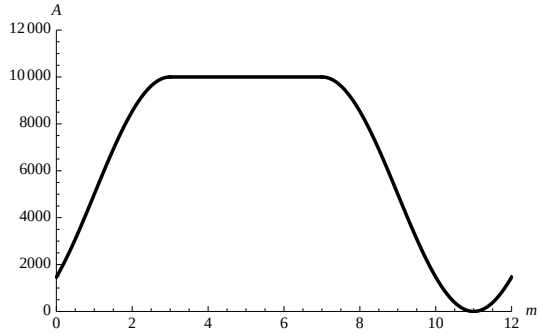
$g(m) =$ _____

$h(m)$



$h(m) =$ _____

$j(m)$

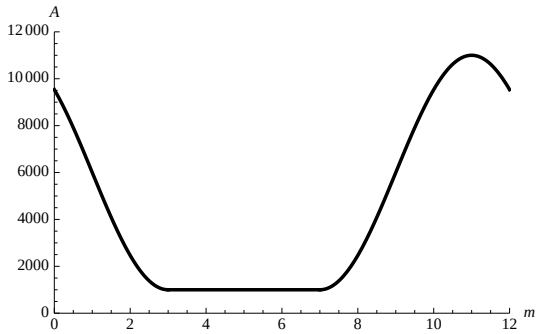


$j(m) =$ _____

b. [4 points] The function b from the previous page represents the number of bushels of Michigan-grown organic apples, A, available in Michigan grocery stores as a function of the number of months, m, after January 1. The function $A = b(m)$ is repeated below.

Which of the graphs on the *preceding page* could best correspond to the statement:

"In Washington, the apple growing season starts a month earlier, and the peak grocery store supply is three times as much as in Michigan." Explain your answer.



c. [6 points] Using the graph of $b(m)$, repeated above, sketch a well-labeled graph of $b'(m)$.