

Computer Programming  
ACSL - Recursive Functions Worksheet #1

Name \_\_\_\_\_  
Period \_\_\_\_\_

Evaluate the following. Label and show your work on paper.

$$f(x) = \begin{cases} [f(x-3)]^2 & \text{if } x > 5 \\ 5 & \text{if } x \leq 5 \end{cases}$$

1.  $f(7) =$

Help? Answer.

2.  $f(6) =$

Help? Answer.

$$g(x) = \begin{cases} g(x-1) + 3x & \text{if } x > 0 \\ 2x^2 & \text{if } x \leq 0 \end{cases}$$

3.  $g(3) =$

Help? Answer.

4.  $g(0) =$

Help? Answer.

$$h(x) = \begin{cases} h(x/2) + 3 & \text{if } x > 100 \\ 2x & \text{if } x \leq 100 \end{cases}$$

5.  $h(1000) =$

Help? Answer.

6.  $h(1005) =$

Help? Answer.

$$j(x) = \begin{cases} 2[j(x-2) + 3] & \text{if } x \geq 10 \\ j(x-1) + 5 & \text{if } 8 \leq x < 10 \\ 10 & \text{if } x < 8 \end{cases}$$

7.  $j(11) =$

Help?

Answer.

8.  $j(10) =$

Help?

Answer.