

## 11.8 HW

Use the following functions for numbers 1-5:

$$f(x) = 2x^2 - 3$$

$$g(x) = -3x + 2$$

1) Find  $f(g(0))$ .

2) Find  $g(f(0))$ .

3) Find  $f(2) + g(2)$ .

4) Find  $f(2) + g(2) + f(g(2))$ .

5) What is  $f(g(x))$  in standard form?

Use the following function for numbers 6-7

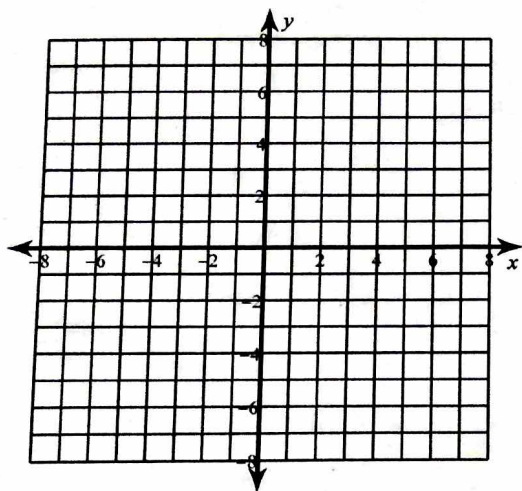
$$a(0) = -2$$

$$a(n) = -2a(n - 1) + 2n + 3$$

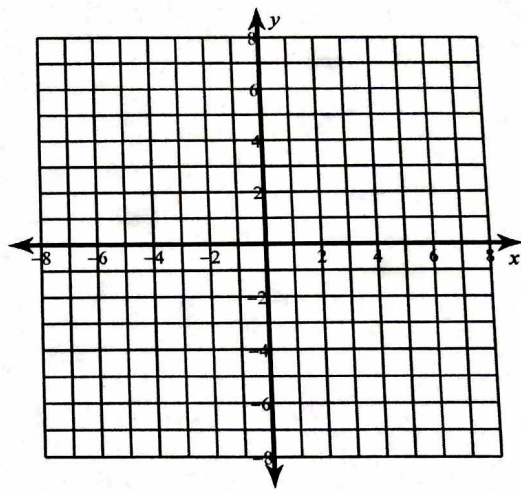
6) Find  $a(3)$ .

7) What is the input value you need to find  $a(2)$ ?

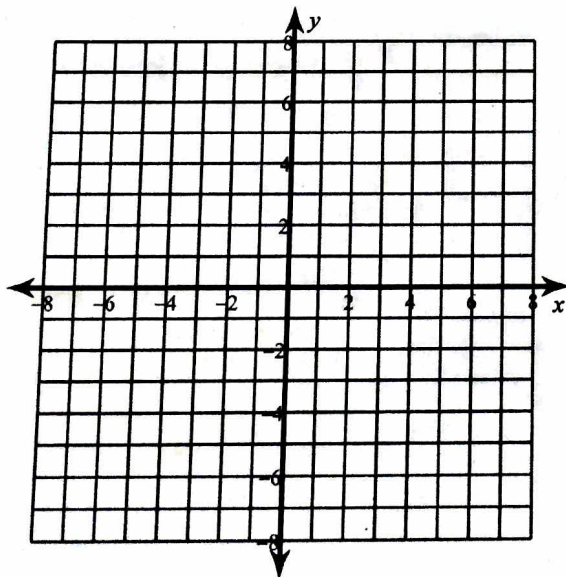
$$8) p(x) = \begin{cases} -|x+4|, & x < 2 \\ (x-3)^2 - 5, & x \geq 2 \end{cases}$$



$$9) q(x) = \begin{cases} 2x+6, & x \leq -1 \\ -3, & x > 2 \end{cases}$$



$$10) h(x) = \begin{cases} x^2 - 5, & x \leq -4 \\ -x + 2, & -4 < x \leq 3 \\ |x| - 6, & x > 3 \end{cases}$$



$$11) k(x) = \begin{cases} -3, & x < -3 \\ -x^2 + 6, & -3 < x < 3 \\ -3, & x > 3 \end{cases}$$

