

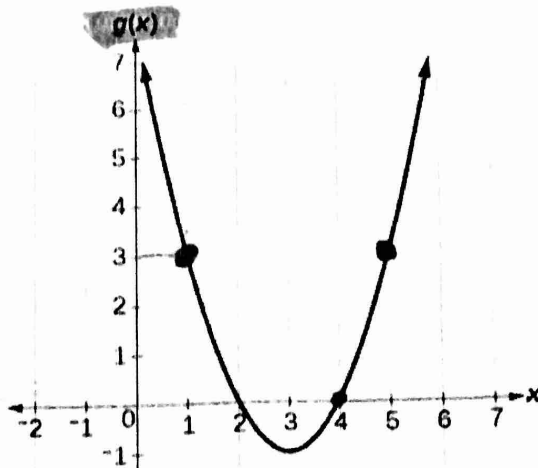
Name: _____

Period: _____

Evaluating Functions Homework

Given the following functions below ($f(x)$, $g(x)$, and $h(x)$), evaluate.

x	$f(x)$
-4	-10
-2	-4
0	2
2	8
4	14



$h(x) = x^2 - 3x + 1$

$j(x) = |x - 6| + 1$

$k(x) = \frac{1}{2}x - 5$

Find:

1) $f(2) = \boxed{8}$

2) $g(5) = \boxed{3}$

3) $h(3) =$
 $(3)^2 - 3(3) + 1$
 $9 - 9 + 1 = \boxed{1}$

4) $f(x) = -4$

$x = \boxed{-2}$

5) $g(x) = 3$

$x = \boxed{1}$ $x = \boxed{5}$

6) $h(-4) =$

$(-4)^2 - 3(-4) + 1$
 $16 + 12 + 1 = \boxed{29}$

7) $j(4) =$

$|4 - 6| + 1$
 $|-2| + 1 = \boxed{3}$

8) $k(x) = 2$

$2 = \frac{1}{2}x - 5$
 $7 = \frac{1}{2}x$
 $x = \boxed{14}$

9) $j(x) = 4$

$4 = |x - 6| + 1$
 $3 = |x - 6|$ $-3 = x - 6$
 $3 = x - 6$ $9 = x$ $3 = x$

10) $g(4) =$

$\boxed{0}$

11) $k(-6a) =$

$\frac{1}{2}(-6a) - 5$
 $-3a - 5 = \boxed{-3a - 5}$

12) $k(2b + 8) =$

$\frac{1}{2}(2b + 8) - 5$
 $b + 4 - 5 = \boxed{b - 1}$

13) $h(3a) =$

$(3a)^2 - 3(3a) + 1$
 $9a^2 - 9a + 1 = \boxed{9a^2 - 9a + 1}$

14) $j(x) = -5$

$-5 = |x - 6| + 1$
 $-6 = |x - 6|$
 $\boxed{\emptyset}$

15) $h(a + 2) =$

$(a + 2)^2 - 3(a + 2) + 1$
 $a^2 + 4a + 4 - 3a - 6 + 1 = \boxed{a^2 + a - 1}$