**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CC Algebra**

**Piecewise Functions**

Evaluate the following for *f(x)* = $\left\{\begin{array}{c}3x-5, x>4\\x^{2}, x \leq 4\end{array}\right.$

1. f(7) 2. f(4) 3. f(-3)

Evaluate the following for *f(x)* =$\left\{\begin{array}{c}-2\left|x+1\right|, x\leq 1\\ 3, 1<x<3\\6-2x, x\geq 3\end{array}\right.$

4. f(10) 5. f(2) 6. f(0)

Graph the following piecewise functions.

7. *f(x)* = $\left\{\begin{array}{c}-2, x<0\\3, x\geq 0\end{array}\right.$

8. *g(x)* = $\left\{\begin{array}{c}-x+2, x<2\\x-2, x\geq 2\end{array}\right.$



9. *h(x)* = $\left\{\begin{array}{c}-3x+2, x\leq 2\\\frac{1}{2}x-4, x>2\end{array}\right.$

10. *f(x)* = $\left\{\begin{array}{c}4, x\leq -2\\ x^{2}, -2<x<2\\4, x\geq 2\end{array}\right.$

11. *g(x)* = $\left\{\begin{array}{c}3x+12, x\leq -3\\\left|x\right|, -3<x<3\\-3x+12, x\geq 3\end{array}\right.$



12. *h(x)* = $\left\{\begin{array}{c}x^{2}-4, x<3\\\frac{2}{3}x-5, x\geq 3\end{array}\right.$

13. Write the function for the given graph.



14. Write the function for the given graph.

