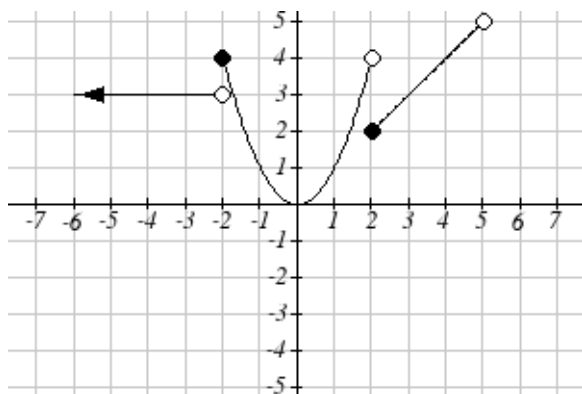


**Unit 1 Assessment**  
**Quiz 3a: Sections 1.3–1.5**

1. For the piecewise-defined function shown below, please fill in the missing information.



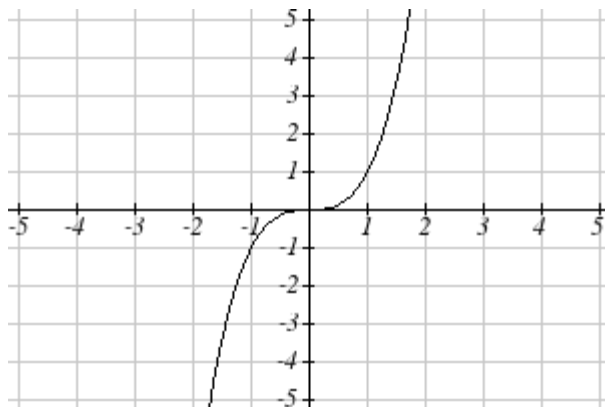
$$f(x) = \left\{ \begin{array}{ll} \text{if} & -\infty < x < -2 \\ \text{if} & \leq x < \\ \text{if} & 2 \leq x < 5 \end{array} \right\}$$

2. Given the two functions  $f(x) = x^2 - 4x + 1$  and  $g(t) = 1 - t$

a. Find and simplify  $f(g(t))$

b. Find and simplify  $g(f(x))$

3. Given the graph, answer the following:



- a. Name this toolkit function and write its equation.
- b. Is this function even/odd or neither? (circle one)
- c. Given the transformation  $-f(x+2)-1$ :
1. Describe the transformation in words.
  2. Sketch the transformation on the same graph as the original toolkit function.